Website:http://biz.LGservice.com

# COLOR MONITOR
# SERVICE MANUAL

CHASSIS NO. : LM57B

MODEL: FLATRON L1753H(L1753H-*FS.A***QPN)
FLATRON L1953H(L1953H-*FS.A***QPN)
FLATRON L1753HR(L1753HR-*FS.A***QPN)
FLATRON L1953HR(L1953HR-*FS.A***QPN)

( ) **Same model for Service

CAUTION
BEFORE SERVICING THE UNIT,
READ THE SAFETY PRECAUTIONS IN THIS MANUAL.

*To apply the MSTAR Chip .

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# SPECIFICATIONS

**1. LCD CHARACTERISTICS**

| | |
|---|---|
| Type | : TFT Color LCD Module |
| Active Display Area | : 17 inch **- L1753** |
| | : 19 inch **- L1953** |
| Pixel Pitch | : 0.264 (H) x 0.264 (V) **- L1753** |
| | : 0.294 (H) x 0.294 (V) **- L1953** |
| Color Depth | : 8bits, 16.2M colors |
| Size | : 358.5 (H) x 296.5 (V) x 17.0(D) **- L1753** |
| | : 396 (H) x 324 (V) x 17.5(D) **- L1953** |
| Electrical Interface | : LVDS |
| Surface Treatment | : Hard-coating(3H), Anti-Glare |
| Operating Mode | : Normally White, Transmissive mode |
| Backlight Unit | : 4-CCFL |

**2. OPTICAL CHARACTERISTICS**

2-1. Viewing Angle by Contrast Ratio ≥ 10

**L1753H**

Left : -70° min., -80°(Typ) Right : +70° min., +80°(Typ)
Top :+60° min., +75°(Typ) Bottom : -70° min., -85°(Typ)

**L1953H**

Left : -65° min., -70°(Typ) Right : +65° min., +70°(Typ)
Top :+70° min., +75°(Typ) Bottom : -55° min., -60°(Typ)

2-2. Luminance : 230(min), 300(Typ) (Full White pattern, 0.70V) **-6500K**
: 150(min) (Full White pattern, 0.70V) **-9300K**
75%(min)

2-3. Contrast Ratio : 600(Typ)
DFC : 2000 : 1

**3. SIGNAL (Refer to the Timing Chart)**

3-1. Sync Signal
• Type : Separate Sync, Digital, SOG

3-2. Video Input Signal

| | |
|---|---|
| 1) Type | : R, G, B Analog |
| 2) Voltage Level | : 0~0.71 V |
| a) Color 0, 0 | : 0 Vp-p |
| b) Color 7, 0 | : 0.467Vp-p |
| c) Color 15, 0 | : 0.714Vp-p |
| 3) Input Impedance | : 75Ω |

3-3. Operating Frequency

| | |
|---|---|
| Horizontal | : 30 ~ 83kHz |
| Vertical | : 56 ~ 75Hz |

**4. Max. Resolution**

| | |
|---|---|
| D-sub Analog | : 1280 x 1024@75Hz |
| Digital | : 1280 x 1024@60Hz |

**5. POWER SUPPLY**

5-1. Power : AC 100-240V~, 50/60Hz , 0.8A

5-2. Power Consumption

| MODE | H/V SYNC | VIDEO | POWER CONSUMPTION | LED COLOR |
|---|---|---|---|---|
| POWER ON (NORMAL) | ON/ON | ACTIVE | less than 34 W -**L1753** | BLUE |
| | | | less than 38W -**L1953** | |
| STAND-BY | OFF/ON | OFF | less than 1 W | AMBER |
| SUSPEND | ON/OFF | OFF | less than 1 W | AMBER |
| DPMS OFF | OFF/OFF | OFF | less than 1 W | AMBER |
| POWER S/W Off | - | - | less than 1 W | OFF |

**6. ENVIRONMENT**

6-1. Operating Temperature : 10°C~35°C (50°F~95°F)
(Ambient)
6-2. Relative Humidity : 10%~80% (Non-condensing)
6-3. MTBF : 50,000 HRS with 90% Confidence
Lamp Life : 50,000 Hours(Min)

**7. DIMENSIONS (with TILT/SWIVEL)**

**L1753**

| | |
|---|---|
| Width | : 364.7 mm (15.35") |
| Depth | : 180.3 mm (9.53") |
| Height | : 378.1 mm (15.98") |

**L1953**

| | |
|---|---|
| Width | : 430 mm (16.93") |
| Depth | : 232 mm (9.13") |
| Height | : 429 mm (16.89") |

**8. WEIGHT (with TILT/SWIVEL)**

**L1753**

| | |
|---|---|
| Net. Weight | : 3.54 kg (9.04 lbs) |
| Gross Weight | : 4 kg (9.92 lbs) |

**L1953**

| | |
|---|---|
| Net. Weight | : 4.6 kg (10.14 lbs) |
| Gross Weight | : 5.1 kg (11.25 lbs) |

# PRECAUTION

**WARNING FOR THE SAFETY-RELATED COMPONENT.**

- There are some special components used in LCD monitor that are important for safety. ***These parts are marked ⚠ on the schematic diagram and the replacement parts list.*** It is essential that these critical parts should be replaced with the manufacturer's specified parts to prevent electric shock, fire or other hazard.
- Do not modify original design without obtaining written permission from manufacturer or you will void the original parts and labor guarantee.

**TAKE CARE DURING HANDLING THE LCD MODULE WITH BACKLIGHT UNIT.**

- Must mount the module using mounting holes arranged in four corners.
- Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
- Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
- Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
- Make certain that treatment person's body are grounded through wrist band.
- Do not leave the module in high temperature and in areas of high humidity for a long time.
- The module not be exposed to the direct sunlight.
- Avoid contact with water as it may a short circuit within the module.
- If the surface of panel become dirty, please wipe it off with a softmaterial. (Cleaning with a dirty or rough cloth may damage the panel.)

**⚠ CAUTION**

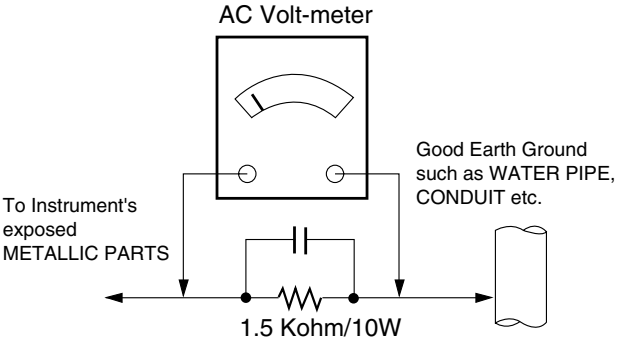
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

**⚠ WARNING**

BE CAREFUL ELECTRIC SHOCK !

- If you want to replace with the new backlight (CCFL) or inverter circuit, must disconnect the AC adapter because high voltage appears at inverter circuit about 650Vrms.
- Handle with care wires or connectors of the inverter circuit. If the wires are pressed cause short and may burn or take fire.

**Leakage Current Hot Check Circuit**



# SERVICING PRECAUTIONS

**CAUTION:** Before servicing receivers covered by this service manual and its supplements and addenda, read and follow the ***SAFETY PRECAUTIONS*** on page 3 of this publication.

***NOTE:*** If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

**General Servicing Precautions**

1. Always unplug the receiver AC power cord from the AC power source before;
   a. Removing or reinstalling any component, circuit board module or any other receiver assembly.
   b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
   c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.
   **CAUTION:** A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
   d. Discharging the picture tube anode.
2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc) equipped with a suitable high voltage probe.
   Do not test high voltage by "drawing an arc".
3. Discharge the picture tube anode only by (a) first connecting one end of an insulated clip lead to the degaussing or kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube anode button, using an insulating handle to avoid personal contact with high voltage.
4. Do not spray chemicals on or near this receiver or any of its assemblies.
5. Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable non-abrasive applicator; 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength)
   **CAUTION:** This is a flammable mixture.
   Unless specified otherwise in this service manual, lubrication of contacts in not required.
6. Do not defeat any plug/socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.
7. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
8. Always connect the test receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.
   Always remove the test receiver ground lead last.
9. *Use with this receiver only the test fixtures specified in this service manual.*
   **CAUTION:** Do not connect the test fixture ground strap to any heat sink in this receiver.

**Electrostatically Sensitive (ES) Devices**

Some semiconductor (solid-state) devices can be damaged easily by static electricity. Such components commonly are called *Electrostatically Sensitive (ES) Devices.* Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed to prevent potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   **CAUTION:** Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

**General Soldering Guidelines**

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range or 500◦F to 600◦F.
2. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a mall wire-bristle (0.5 inch, or 1.25cm) brush with a metal handle.
   Do not use freon-propelled spray-on cleaners.
5. Use the following unsoldering technique
   a. Allow the soldering iron tip to reach normal temperature.
      (500◦F to 600◦F)
   b. Heat the component lead until the solder melts.
   c. Quickly draw the melted solder with an anti-static, suction-type solder removal device or with solder braid.
      **CAUTION:** Work quickly to avoid overheating the circuitboard printed foil.
6. Use the following soldering technique.
   a. Allow the soldering iron tip to reach a normal temperature (500◦F to 600◦F)
   b. First, hold the soldering iron tip and solder the strand against the component lead until the solder melts.
   c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
      **CAUTION:** Work quickly to avoid overheating the circuit board printed foil.
   d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

**IC Remove/Replacement**

Some chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

***Removal***

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

***Replacement***

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the areas).

**"Small-Signal" Discrete Transistor Removal/Replacement**

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into a "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact then solder each connection.

**Power Output, Transistor Device Removal/Replacement**

1. Heat and remove all solder from around the transistor leads.
2. Remove the heat sink mounting screw (if so equipped).
3. Carefully remove the transistor from the heat sink of the circuit board.
4. Insert new transistor in the circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heat sink.

**Diode Removal/Replacement**

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicular y to the circuit board.
3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two "original" leads. If they are not shiny, reheat them and if necessary, apply additional solder.

**Fuse and Conventional Resistor Removal/Replacement**

1. Clip each fuse or resistor lead at top of the circuit board hollow stake.
2. Securely crimp the leads of replacement component around notch at stake top.
3. Solder the connections.
   **CAUTION:** Maintain original spacing between the replaced component and adjacent components and the circuit board to prevent excessive component temperatures.

**Circuit Board Foil Repair**

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board causing the foil to separate from or "lift-off" the board. The following guidelines and procedures should be followed whenever this condition is encountered.

***At IC Connections***

To repair a defective copper pattern at IC connections use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections).

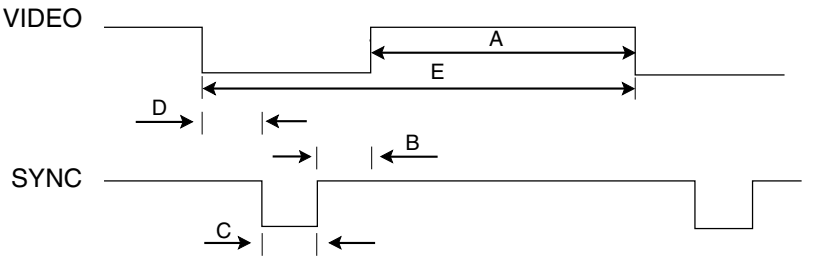
1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the out-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area and clip off any excess jumper wire.

***At Other Connections***

Use the following technique to repair the defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.

1. Remove the defective copper pattern with a sharp knife.
   Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side.
   Carefully crimp and solder the connections.
   **CAUTION:** Be sure the insulated jumper wire is dressed so the it does not touch components or sharp edges.

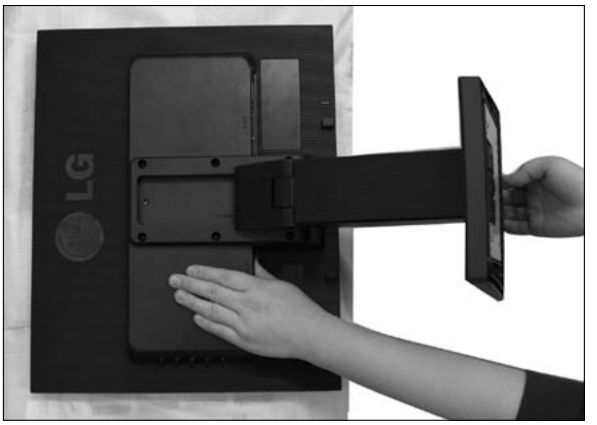
# TIMING CHART




| MODE | H / V | Sync Polarity | Dot Clock | Frequency | Total Period ( E ) | Video Active Time ( A ) | Sync Duration ( D ) | Front Porch ( C ) | Blanking Time ( B ) | Resolution |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | H(Pixels) | + | 25.175 | 31.469 | 800 | 640 | 16 | 96 | 48 | 640 x 350 |
| | V(Lines) | - | | 70.09 | 449 | 350 | 37 | 2 | 60 | |
| 2 | H(Pixels) | - | 28.321 | 31.468 | 900 | 720 | 18 | 108 | 54 | 720 X 400 |
| | V(Lines) | + | | 70.08 | 449 | 400 | 12 | 2 | 35 | |
| 3 | H(Pixels) | - | 25.175 | 31.469 | 800 | 640 | 16 | 96 | 48 | 640 x 480 |
| | V(Lines) | - | | 59.94 | 525 | 480 | 10 | 2 | 33 | |
| 4 | H(Pixels) | - | 31.5 | 37.5 | 840 | 640 | 16 | 64 | 120 | 640 x 480 |
| | V(Lines) | - | | 75 | 500 | 480 | 1 | 3 | 16 | |
| 5 | H(Pixels) | + | 40.0 | 37.879 | 1056 | 800 | 40 | 128 | 88 | 800 x 600 |
| | V(Lines) | + | | 60.317 | 628 | 600 | 1 | 4 | 23 | |
| 6 | H(Pixels) | + | 49.5 | 46.875 | 1056 | 800 | 16 | 80 | 160 | 800 x 600 |
| | V(Lines) | + | | 75.0 | 625 | 600 | 1 | 3 | 21 | |
| 7 | H(Pixels) | +/- | 57.283 | 49.725 | 1152 | 832 | 32 | 64 | 224 | 832 x 624 |
| | V(Lines) | +/- | | 74.55 | 667 | 624 | 1 | 3 | 39 | |
| 8 | H(Pixels) | - | 65.0 | 48.363 | 1344 | 1024 | 24 | 136 | 160 | 1024 x 768 |
| | V(Lines) | - | | 60.0 | 806 | 768 | 3 | 6 | 29 | |
| 9 | H(Pixels) | - | 78.75 | 60.123 | 1312 | 1024 | 16 | 96 | 176 | 1024 x 768 |
| | V(Lines) | - | | 75.029 | 800 | 768 | 1 | 3 | 28 | |
| 10 | H(Pixels) | +/- | 100.0 | 68.681 | 1456 | 1152 | 32 | 128 | 144 | 1152 x 870 |
| | V(Lines) | +/- | | 75.062 | 915 | 870 | 3 | 3 | 39 | |
| 11 | H(Pixels) | +/- | 92.978 | 61.805 | 1504 | 1152 | 18 | 134 | 200 | 1152 x 900 |
| | V(Lines) | +/- | | 65.96 | 937 | 900 | 2 | 4 | 31 | |
| 12 | H(Pixels) | + | 108.0 | 63.981 | 1688 | 1280 | 48 | 112 | 248 | 1280 x 1024 |
| | V(Lines) | + | | 60.02 | 1066 | 1024 | 1 | 3 | 38 | |
| 13 | H(Pixels) | + | 135.0 | 79.976 | 1688 | 1280 | 16 | 144 | 248 | 1280 x 1024 |
| | V(Lines) | + | | 75.035 | 1066 | 1024 | 1 | 3 | 38 | |

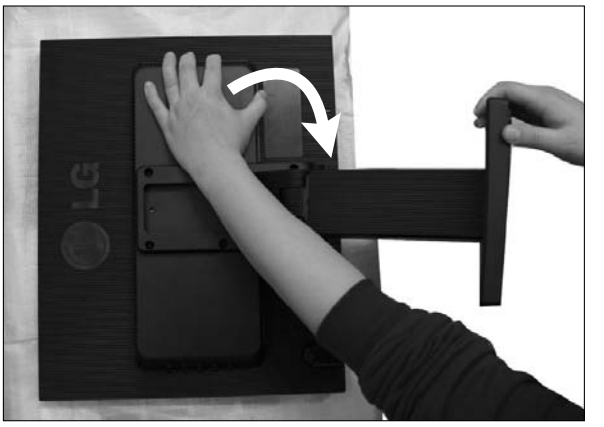
# DISASSEMBLY-Set

**# 1**



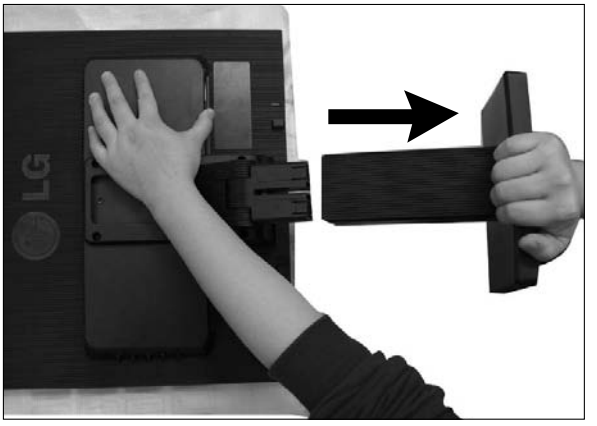
Hold the product as it follows and lift up the Stand slightly.

**# 2**



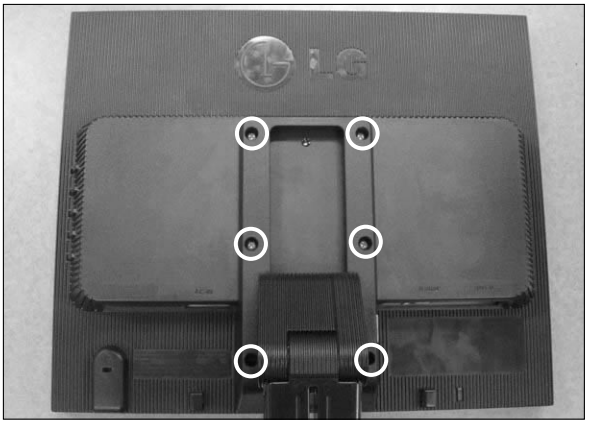
Change your hold on the product as it follows and turn the Stand Base in the arrow direction until you hear a "click."

**# 3**



Pull out the Stand to remove.

**# 4**

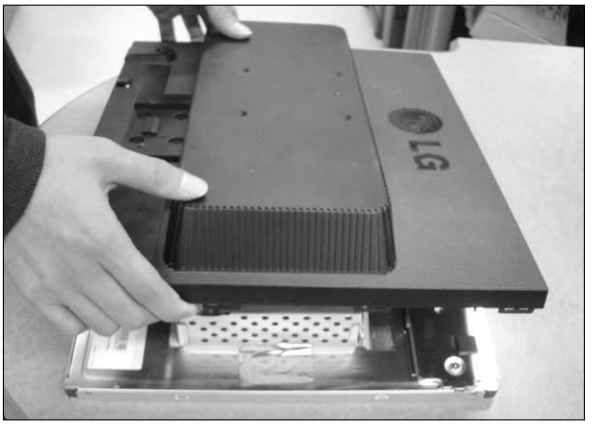


Remove the screws.

**# 5**

1. Pull the front cover upward.
2. Then, let the all latches are separated.
3. Put the front face down.

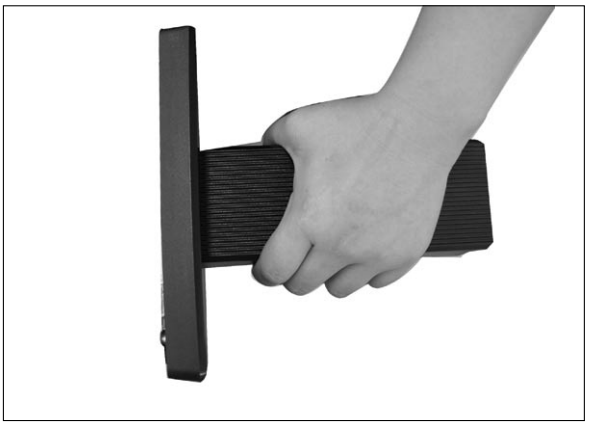
**# 6**



Disassemble back cover.

# DISASSEMBLY-Stand

**# 1**

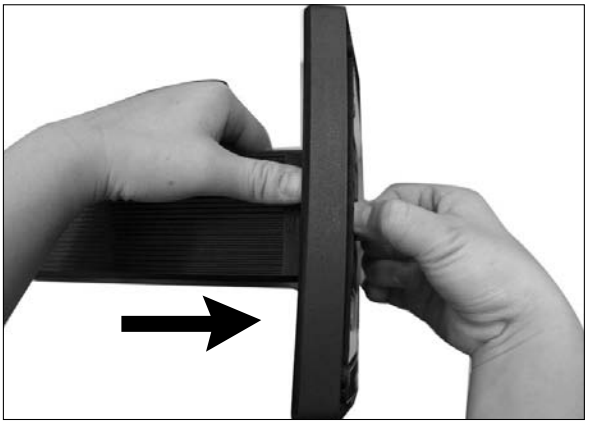


Hold the body of the Stand as it follows.

**# 2**

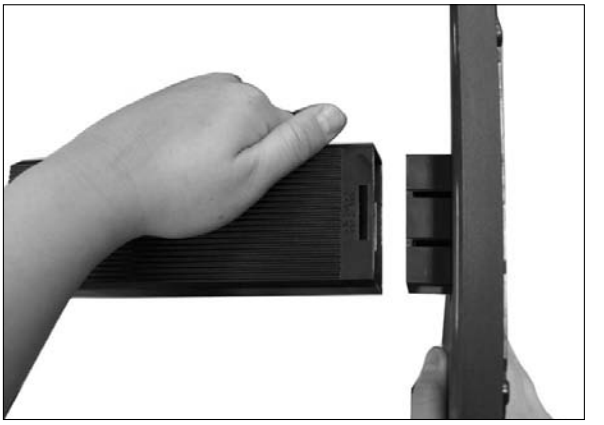
Press the two latches at the same time as it follows.

**# 3**



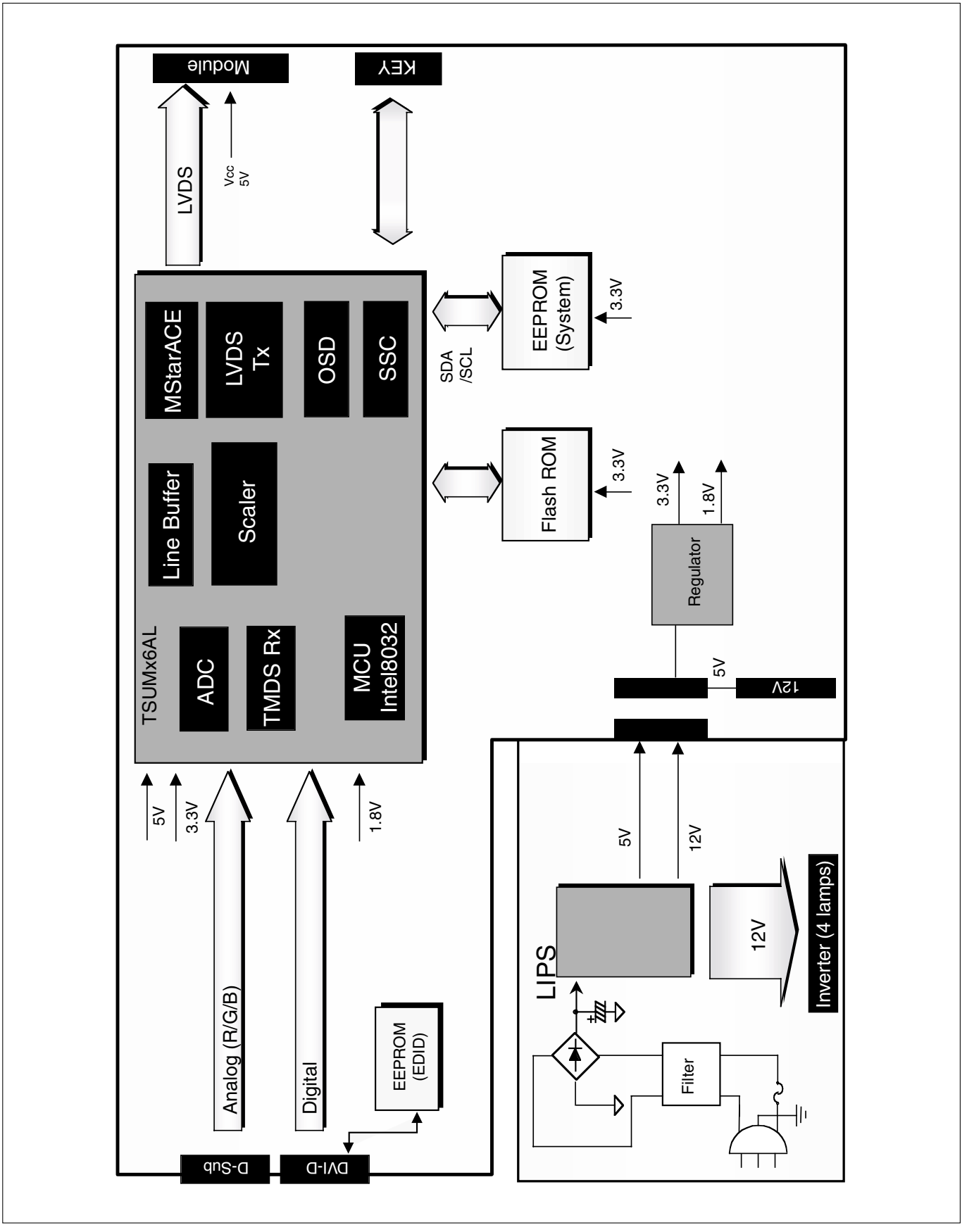
Pushing Latch inside,Take the stand base from stand body.

**#4**

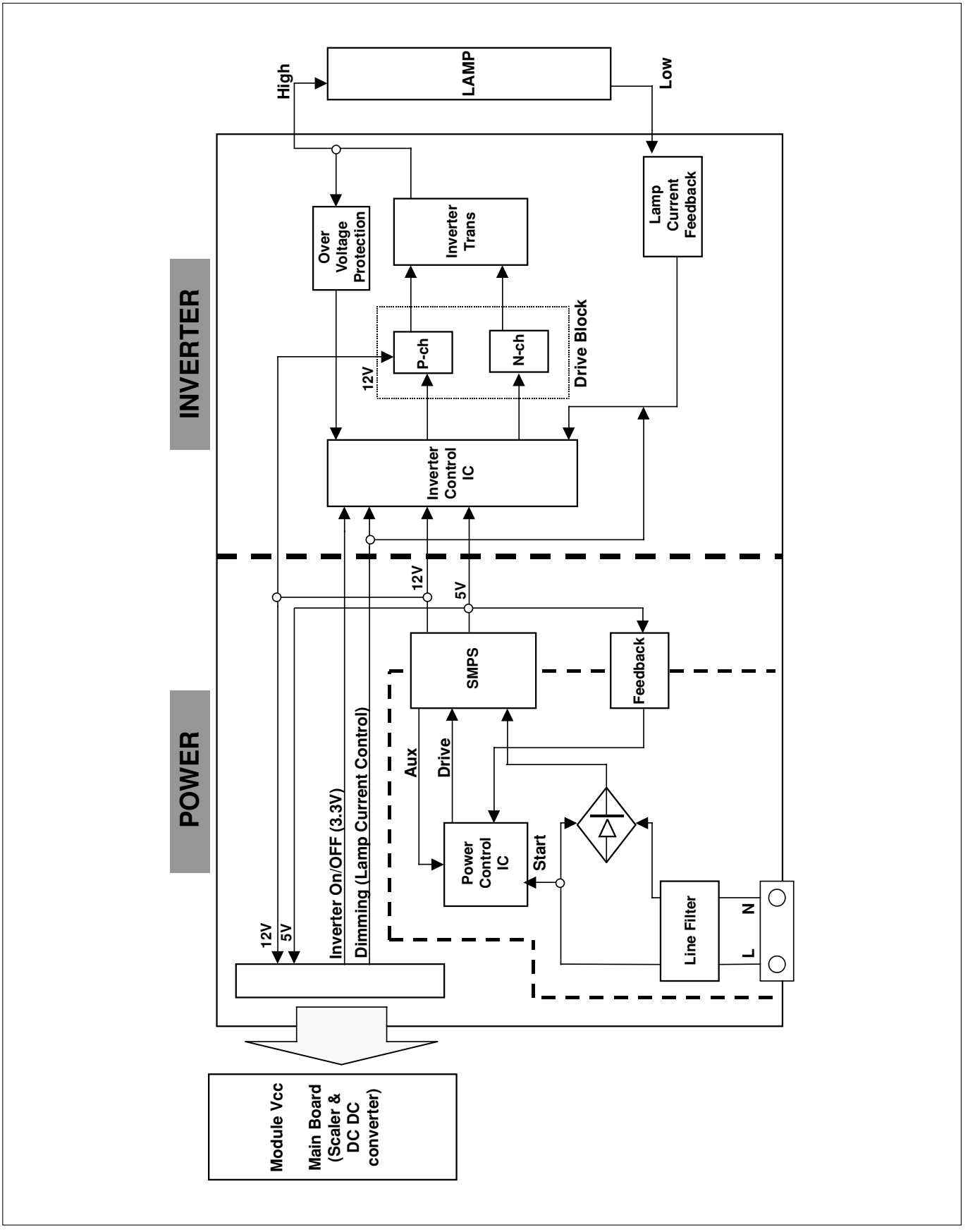


The body of the Stand and the Stand Base are successfully separated.

# BLOCK DIAGRAM



# BLOCK DIAGRAM-POWER



# DESCRIPTION OF BLOCK DIAGRAM

**1. Video Controller Part.**

This part amplifies the level of video signal for the digital conversion and converts from the analog video signal to the digital video signal using a pixel clock.
The pixel clock for each mode is generated by the PLL.
The range of the pixel clock is from 25MHz to 135MHz.
This part consists of the Scaler, ADC convertor, TMDS receiver and LVDS transmitter.
The Scaler gets the video signal converted analog to digital, interpolates input to 1280 X 1024 resolution signal and outputs 8-bit R, G, B signal to transmitter.

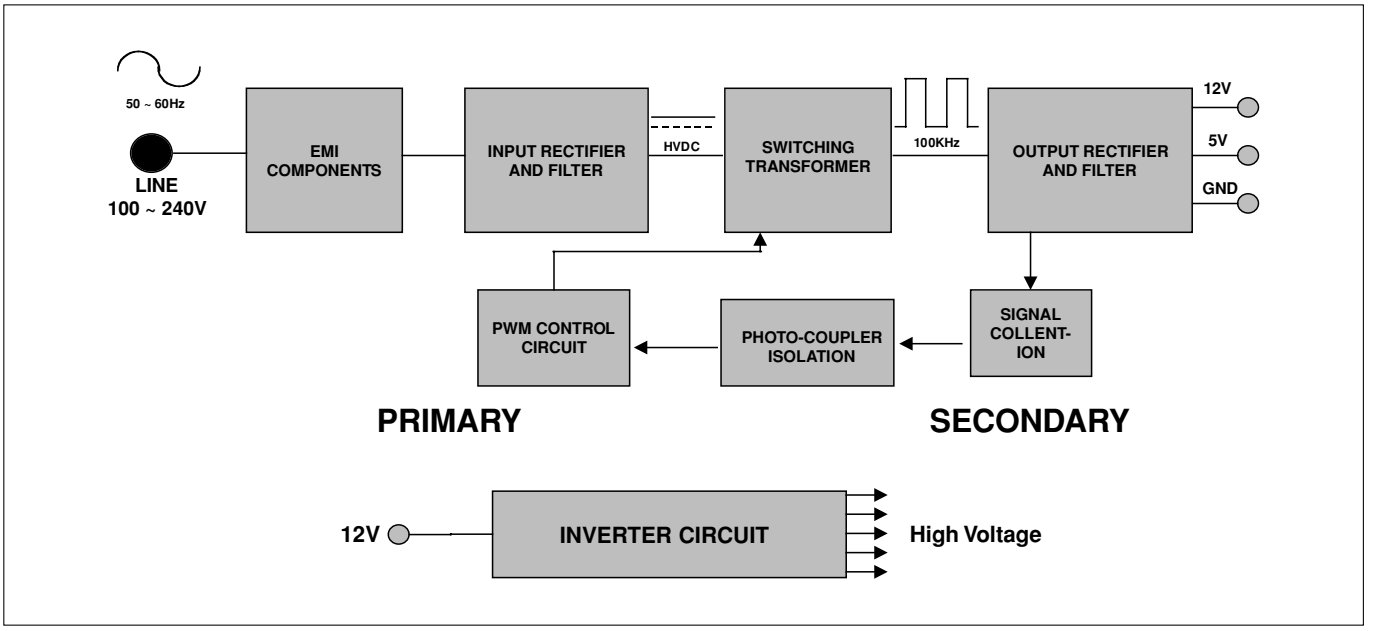
**2. Power Part.**

This part consists of the one 3.3V, and one 1.8V regulators to convert power which is provided 5V in Power board.
12V is provided for inverter, 5V is provided for LCD panel.
Also, 5V is converted 3.3V and 1.8V by regulator. Converted power is provided for IC in the main board.
The inverter converts from DC12V to AC 700Vrms and operates back-light lamps of module.

**3. MICOM Part.**

This part is include video controller part. And this part consists of EEPROM IC which stores control data, Reset IC and the Micom.
The Micom distinguishes polarity and frequency of the H/V sync are supplied from signal cable.
The controlled data of each modes is stored in EEPROM.

# LIPS Board Block Diagram




## Operation description_LIPS

**1. EMI components.**

This part contains of EMI components to comply with global marketing EMI standards like FCC,VCCI CISPR, the circuit included a line-filter, across line capacitor and of course the primary protection fuse.

**2. Input rectifier and filter.**

This part function is for transfer the input AC voltage to a DC voltage through a bridge rectifier and a bulk capacitor.

**3. Energy Transfer.**

This part function is for transfer the primary energy to secondary through a power transformer.

**4. Output rectifier and filter.**

This part function is to make a pulse width modulation control and to provide the driver signal to power switch, to adjust the duty cycle during different AC input and output loading condition to achieve the dc output stabilized, and also the over power protection is also monitor by this part.

**5. Photo-Coupler isolation.**

This part function is to feed back the DC output changing status through a photo transistor to primary controller to achieve the stabilized DC output voltage.

**6. Signal collection.**

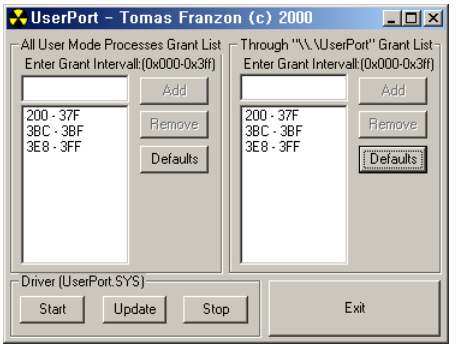
This part function is to collect the any change from the DC output and feed back to the primary through photo transistor.

# ADJUSTMENT

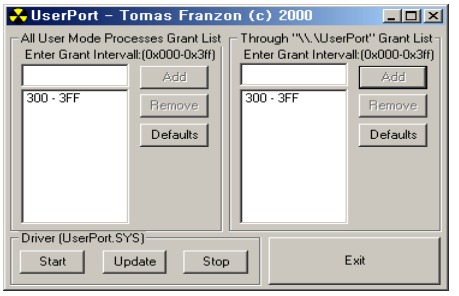
Windows EDID V1.0 User Manual

Operating System: MS Windows 98, 2000, XP
Port Setup: Windows 98 => Don't need setup
Windows 2000, XP => Need to Port Setup.
This program is available to LCD Monitor only.

1. Port Setup
   a) Copy "UserPort.sys" file to
   "c:\WINNT\system32\drivers" folder
   b) Run Userport.exe

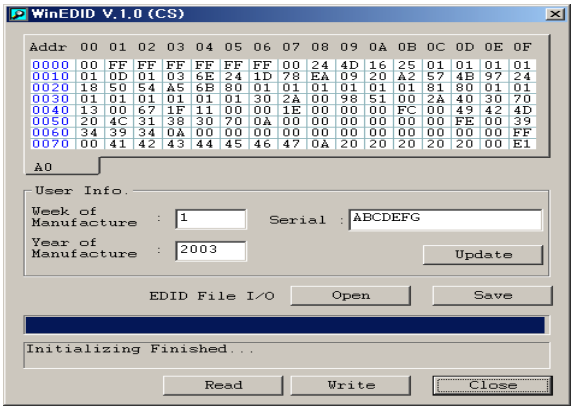



   c) Remove all default number
   d) Add 300-3FF

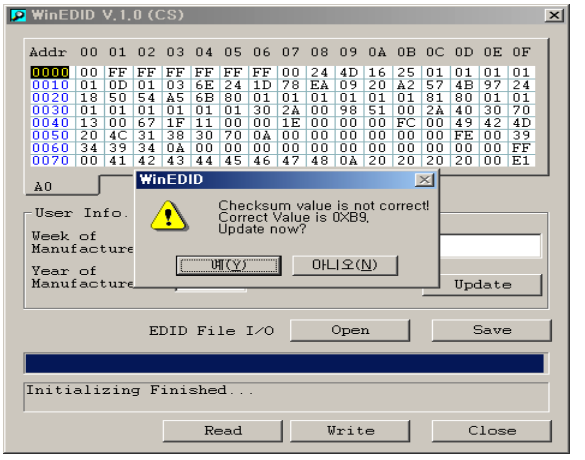



   e) Click Start button.
   f) Click Exit button.

2. EDID Read & Write
   1) Run WinEDID.exe




   2) Edit Week of Manufacture, Year of Manufacture, Serial Number
      a) Input User Info Data
      b) Click "Update" button
      c) Click " Write" button



## SERVICE OSD

**1) Turn off the power switch at the front side of the display.**

**2) Wait for about 5 seconds and press MENU, POWER switch with 1 second interval.**

**3) The SVC OSD menu contains additional menus that the User OSD menu as described below.**

a) Auto Color : W/B balance and Automatically sets the gain and offset value.
b) NVRAM INIT : EEPROM initialize.(24C08)
c) CLEAR ETI : To initialize using time.
d) AGING : Select Aging mode(on/off).
e) R/G/B-9300K : Allows you to set the R/G/B-9300K value manually.
f) R/G/B-6500K : Allows you to set the R/G/B-6500K value manually.
g) R/G/B-Offset : Allows you to set the R/G/B-Offset value manually.(Analog Only)
h) R/G/B-Gain : Allows you to set the R/G/B-Gain value manually.(Analog Only)
i) MODULE : To select applied module.

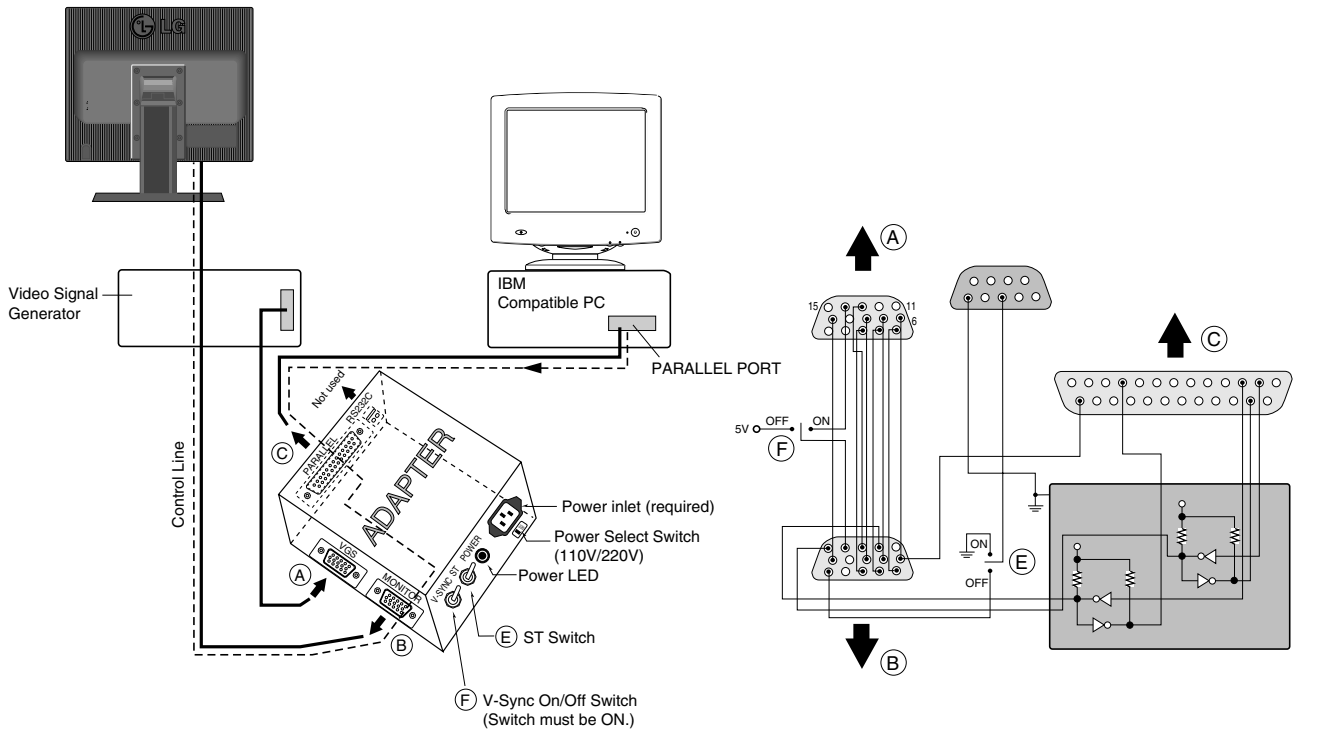
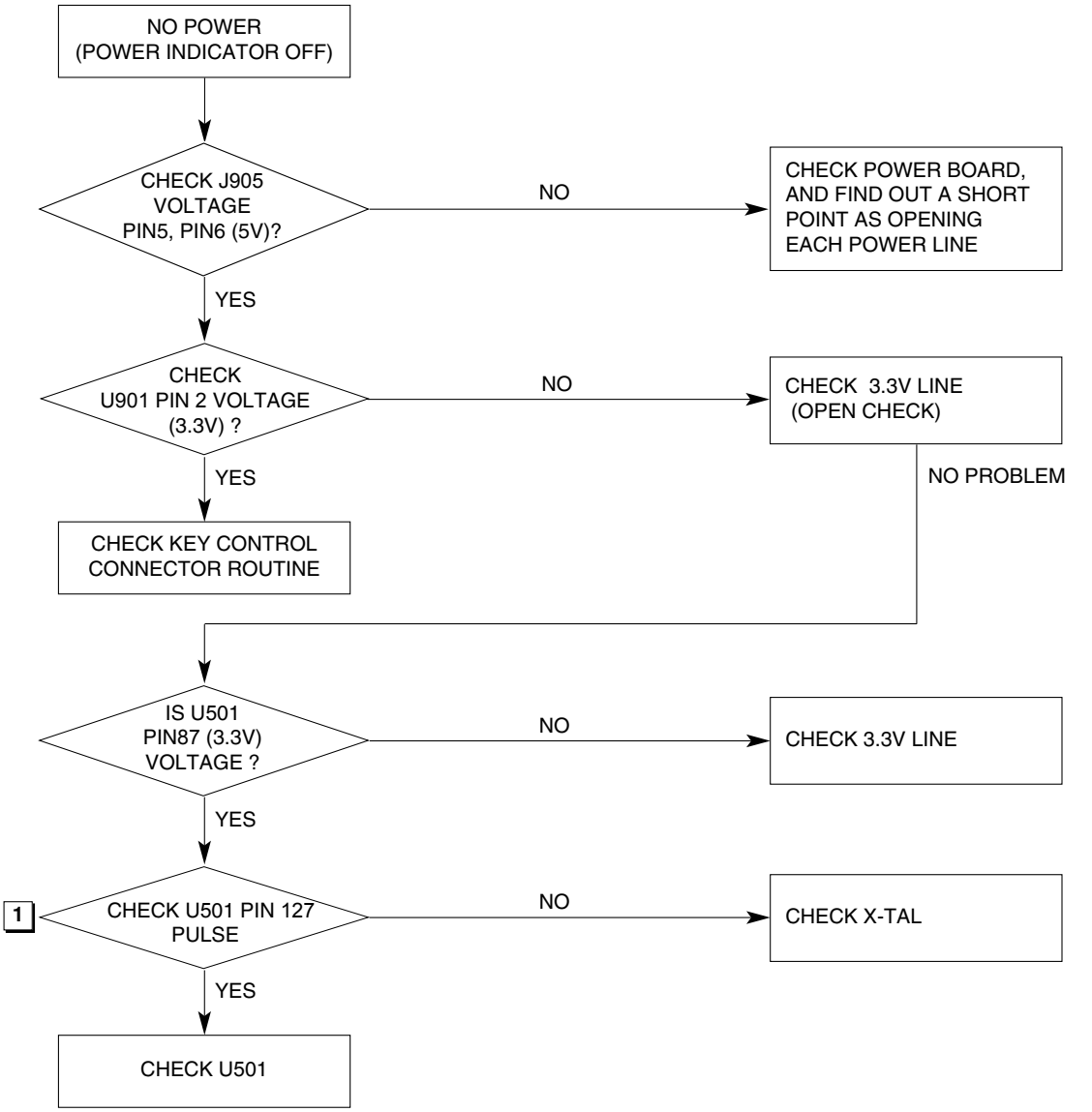



**Figure 1. Cable Connection**

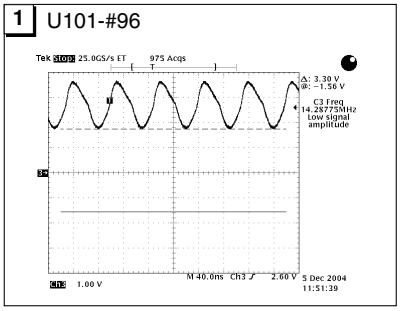
# TROUBLESHOOTING GUIDE

## 1. NO POWER

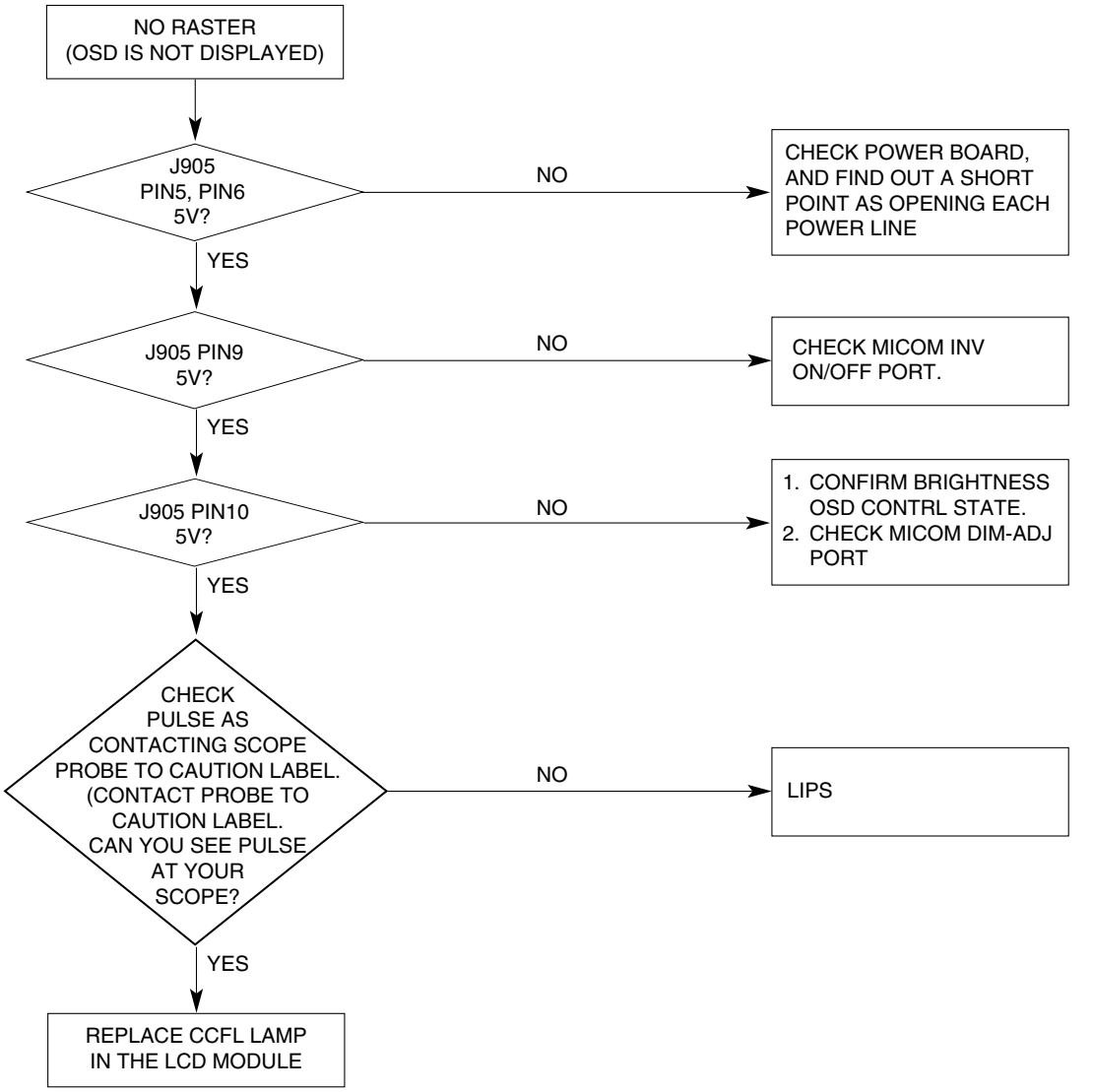



**Waveforms**

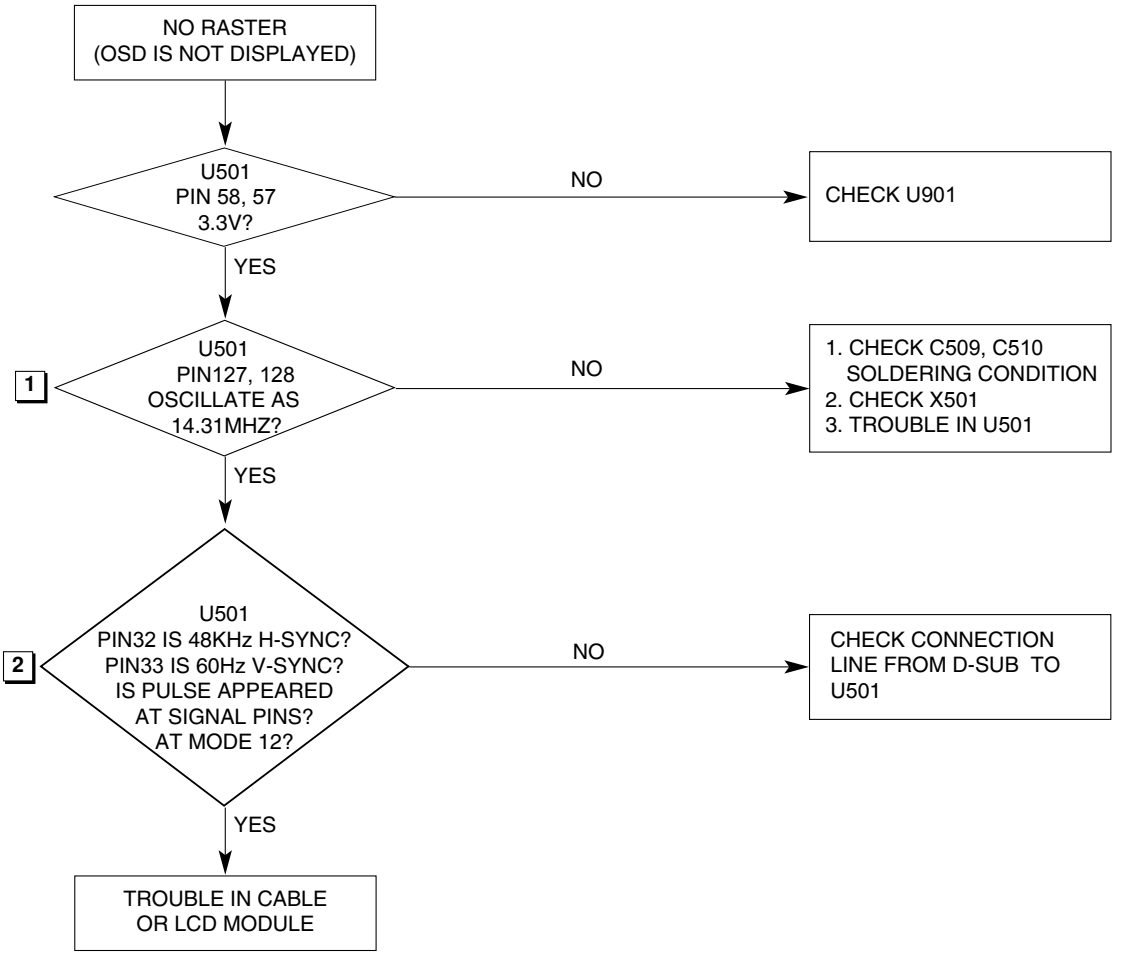
1 U101-#96



## 2. NO RASTER (OSD IS NOT DISPLAYED) – LIPS

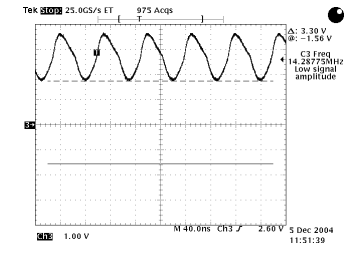


## 3. NO RASTER (OSD IS NOT DISPLAYED) – MSTAR

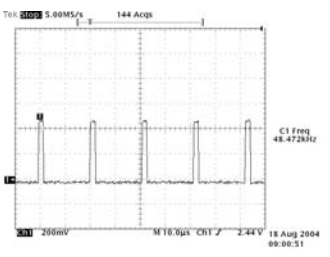



**Waveforms**

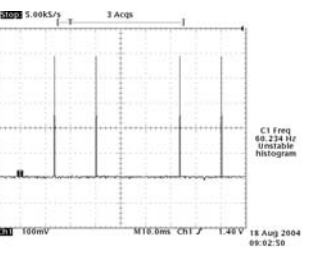
1 U201-#96, 97



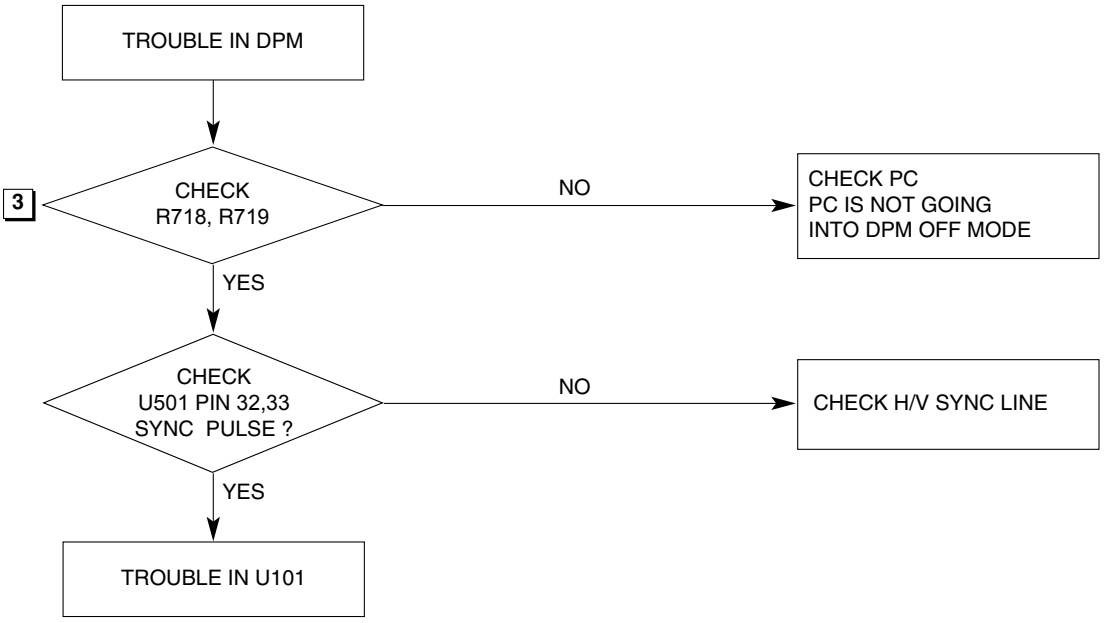
2 U101-#27 H-SYNC



2 U101-#28 V-SYNC

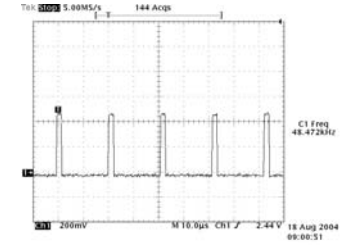


## 4. TROUBLE IN DPM

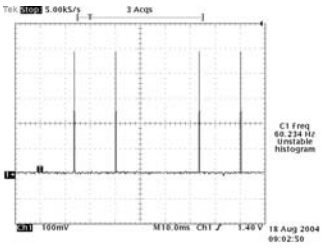



### Waveforms

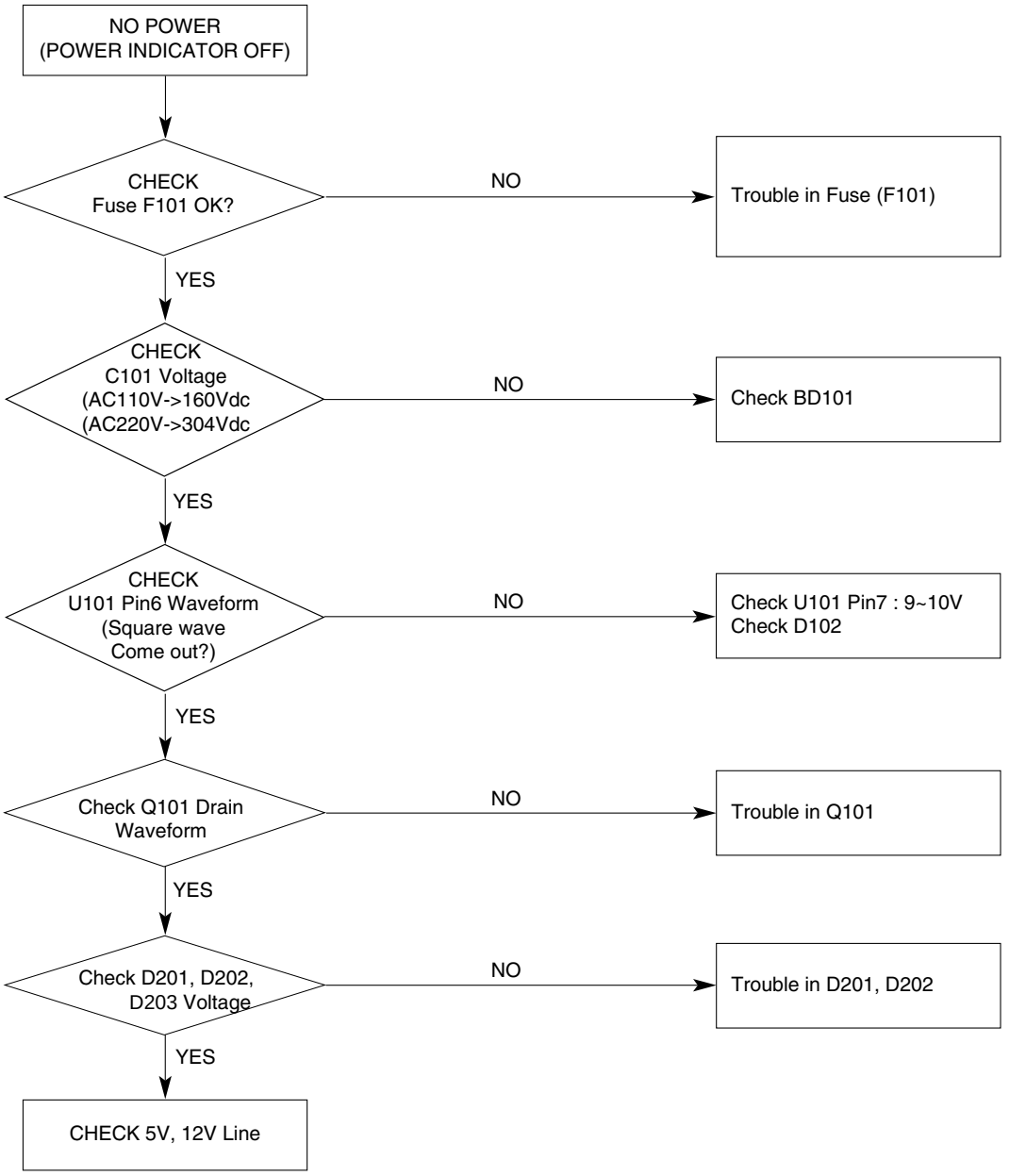
3 R332 H-Sync



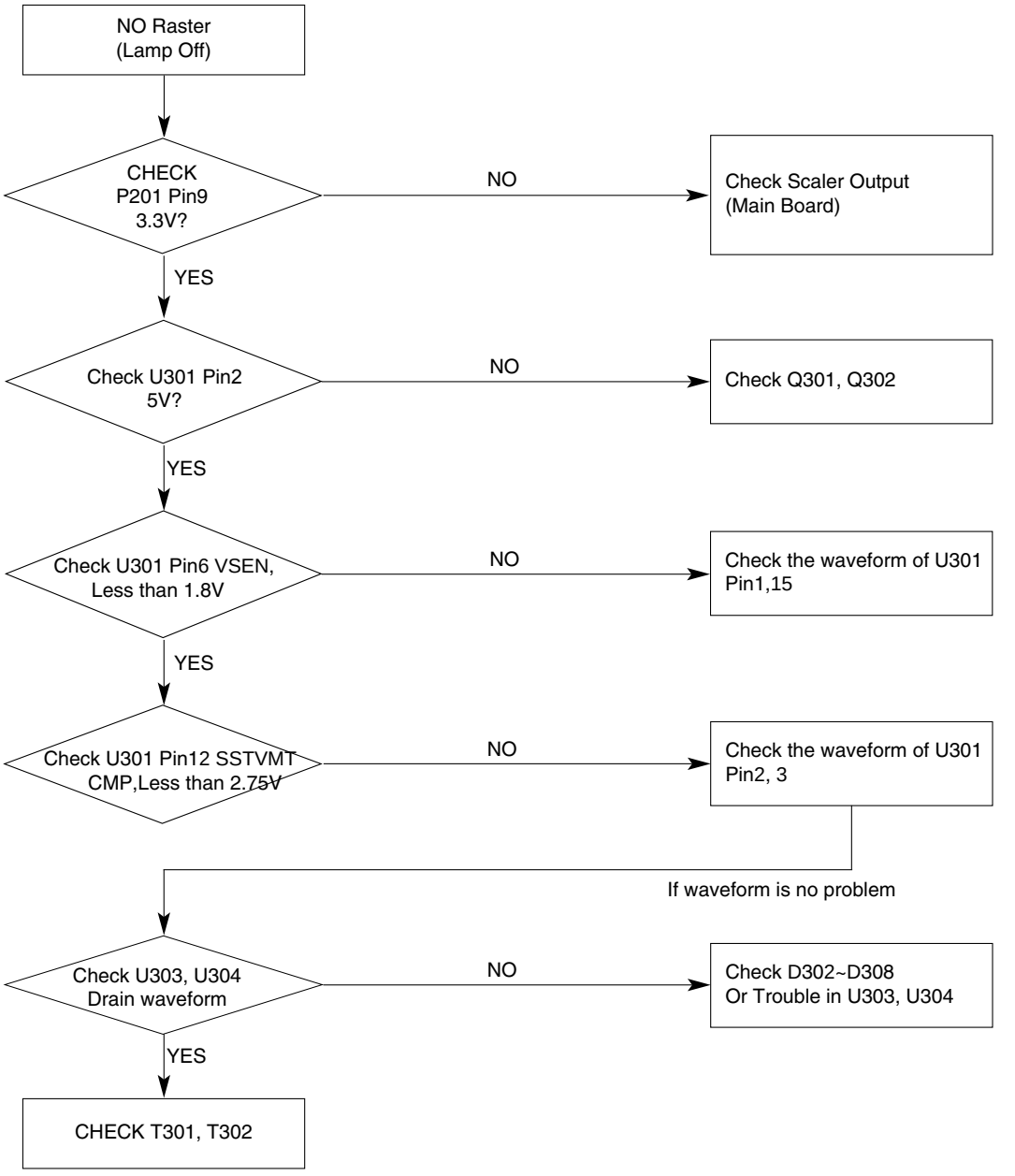
3 R333 V-Sync



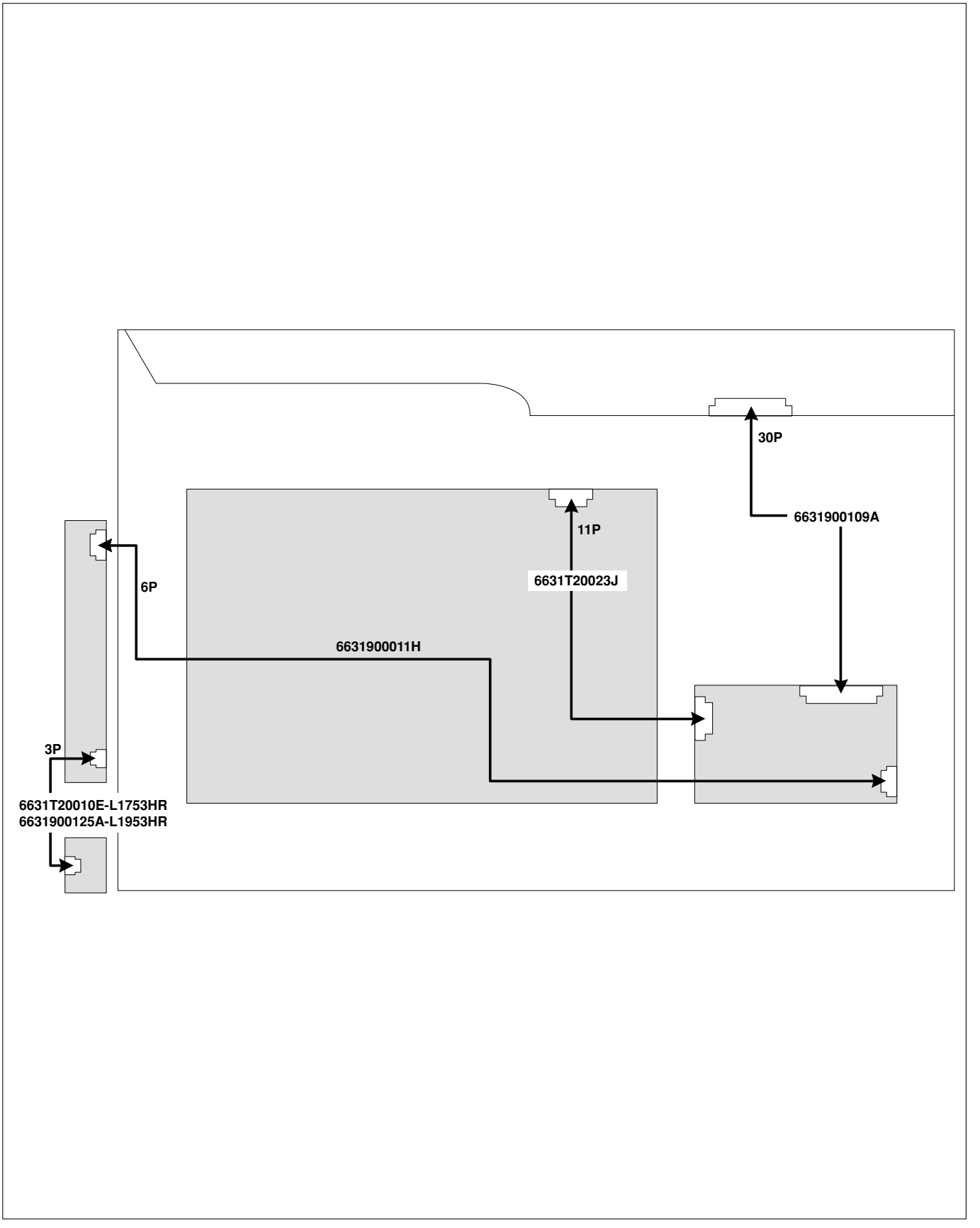
## 5. POWER


NO POWER
(POWER INDICATOR OFF)
CHECK
Fuse F101 OK?
NO
Trouble in Fuse (F101)
YES
CHECK
C101 Voltage
(AC110V->160Vdc
(AC220V->304Vdc
NO
Check BD101
YES
CHECK
U101 Pin6 Waveform
(Square wave
Come out?)
NO
Check U101 Pin7 : 9~10V
Check D102
YES
Check Q101 Drain
Waveform
NO
Trouble in Q101
YES
Check D201, D202,
D203 Voltage
NO
Trouble in D201, D202
YES
CHECK 5V, 12V Line

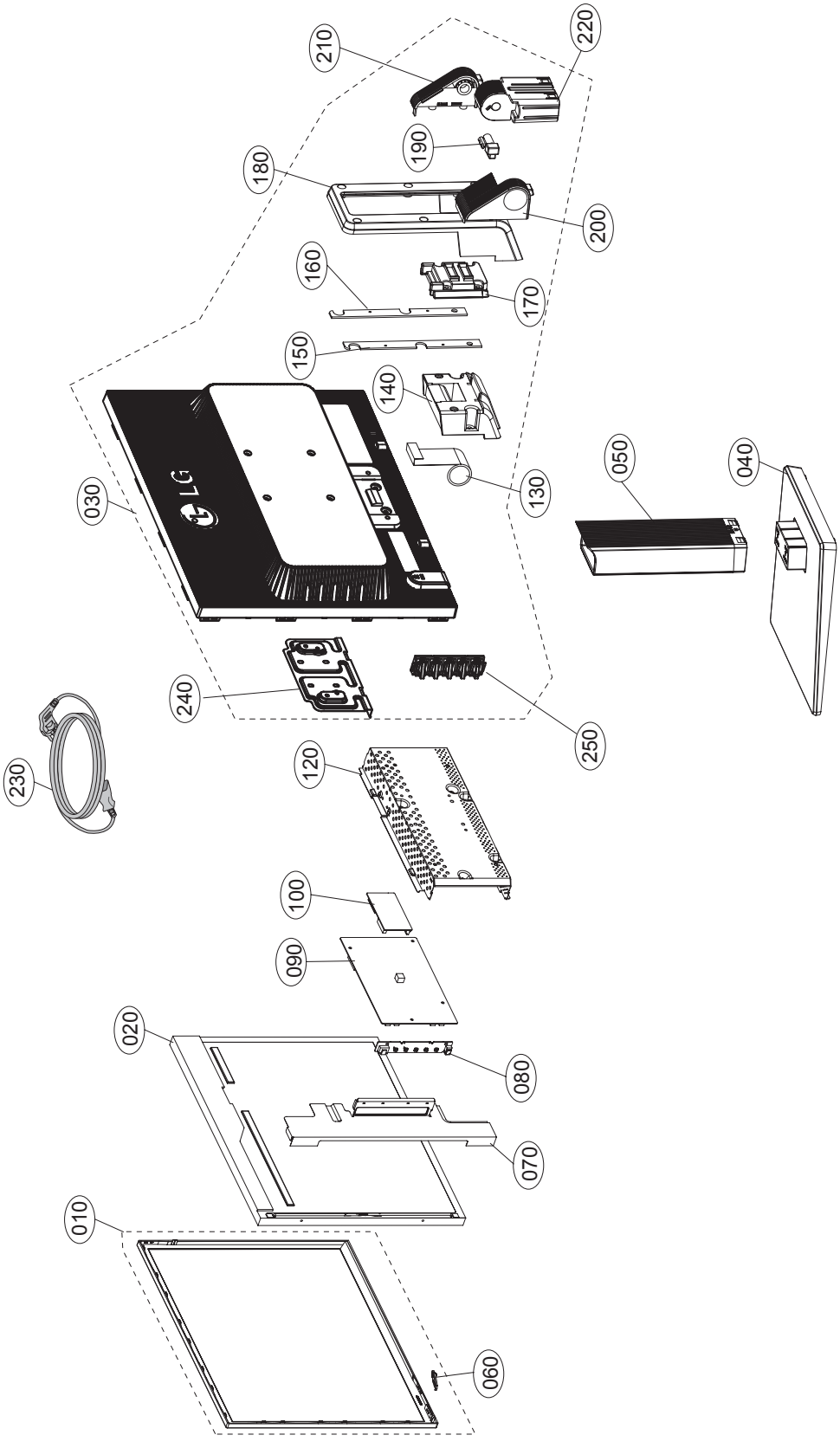
## 6. Raster


NO Raster
(Lamp Off)
CHECK
P201 Pin9
3.3V?
NO
Check Scaler Output
(Main Board)
YES
Check U301 Pin2
5V?
NO
Check Q301, Q302
YES
Check U301 Pin6 VSEN,
Less than 1.8V
NO
Check the waveform of U301
Pin1,15
YES
Check U301 Pin12 SSTVMT
CMP,Less than 2.75V
NO
Check the waveform of U301
Pin2, 3
If waveform is no problem
Check U303, U304
Drain waveform
NO
Check D302~D308
Or Trouble in U303, U304
YES
CHECK T301, T302

# WIRING DIAGRAM



# EXPLODED VIEW



* Note:Safety mark ⚠

| Ref. No. | | Part No. | Description |
|---|---|---|---|
| 010 | ⚠ | ABJ32220405 | Cabinet Assembly,L1753 . 17" NEW PATTERN TEXTURE FOR 30919C0018E -SILVER W/W |
| | | ABJ32220413 | Cabinet Assembly,L1753 . 17" NEW PATTERN TEXTURE FOR 30919C0018N -SILVER US |
| | | ABJ32220437 | Cabinet Assembly,L1753 . 17" NEW PATTERN TEXTURE FOR 30919C0029N -SILVER CN |
| | | ABJ32220484 | Cabinet Assembly,L1753 . 17" L1753H NEW PATTERN TEXTURE, KOREA PC -SILVER PC |
| | | ABJ32220406 | Cabinet Assembly,L1753 . 17" NEW PATTERN TEXTURE FOR 30919C0018F -BLACK W/W |
| | | ABJ32220414 | Cabinet Assembly,L1753 . 17" NEW PATTERN TEXTURE FOR 30919C0018P -BLACK US |
| | | ABJ32220438 | Cabinet Assembly,L1753 . 17" NEW PATTERN TEXTURE FOR 30919C0029P -BLACK CN |
| 020 | ⚠ | EAJ36720101 | LCD,Module-TFT,LM190E08-TLL2 DRIVER 19.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P7, 5ms, 160/160, TLI T-con, Lusem/Toshiba(Source/Gate), lamp Heesung, Diffuser x2+P |
| | | EAJ36379501 | LCD,Module-TFT,LM170E03-TLL2 DRIVER 17.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P6, 5ms, 160/160, TLI T-con, Lusem/Toshiba(Source/Gate), Diffuser x2+Prism x1, lamp wire 135mm LG PHILIPS LCD |
| | | EAJ36378001 | LCD,Module-TFT,LM170E03-TLL1 DRIVER 17.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P5, 5ms, 160/160, TLI T-con, Lusem/Toshiba(Source/Gate), Diffuser*2+Prism*1,lamp wire 135mm LG PHILIPS LCD |
| | | EAJ36380701 | LCD,Module-TFT,LM170E03-TLL3 DRIVER 17.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P5, 5ms, 160/160, TLI T-con, Magna/Toshiba(Source/Gate), Diffuser x2+Prism x1, lamp wire 135mm LG PHILIPS LCD |
| 030 | ⚠ | ACQ30378108 | Cover Assembly,L1752H ---- 17" DUAL+HEIGHT+AUO-VD MODULE |
| | | ACQ30378110 | Cover Assembly,L1752H ----- 17" DUAL+HEIGHT+LPL-TLL MODULE |
| | | ACQ30378115 | Cover Assembly,L1752H ----- 17" Baikal HIPS DUAL+HEIGHT+CPT MODULE ND Local |
| 040 | ⚠ | AAN32694601 | Base Assembly,ASSY LX53 BASE ASSY FOR NT LOCAL (3043900047A) LM57B NEW PATTER TEXTURE |
| | | AAN32694606 | Base Assembly,ASSY LX53 BASE ASSY FOR NT LOCAL PATTERN TEXTURE LM57B NEW PATTER TEXTURE |
| 050 | ⚠ | 35509K0256E | Cover,MOLD ABS Lx53H ABS Lx53 2 Hole(35509K0256A) |
| 060 | | 3520900038A | Indicator,LED&PRE AMP LX52 PMMA NON LED LENS |
| 070 | | MGJ37924303 | Plate,PRESS SPTE 0.3 LAMP SPTE SHIELD L1753 FOR LPL/AUO CI MODULE ND LOCCAL |
| | | 49509K0266A | Plate,SHIELD LX52 LAMP |
| 080 | | EBR37001301 | PCB Assembly,CONTROL T.T LM72A BAIKAL II 17-INCH BLUE RD 53 SERIAL |
| 090 | ⚠ | EBR36269401 | PCB Assembly,Power,POWER T.T LM-57C BAIKAL II - - |
| 100 | | EBU36999301 | Main Total Assembly,BAIKAL II MSTAR DUAL BRAND LM72A |
| 120 | | 49509S0034B | Plate,SHIELD LX52 REAR SHIELD-DUAL |
| | | MGJ37924108 | Plate,PRESS SBHG 0.8 REAR SECC SHIELD LX53 FOR LPL/AUO CI MODULE DUAL ND LOCAL |
| 130 | | 49709C0009D | Plate,CUTTING SUS301 COIL SWP 25.5*25 . LX52 HEIGHT STAND SPRING COIL |
| | | 49709C0009G | Plate,CUTTING SUS301 COIL SWP 25.5*25 . LX52 HEIGHT STAND SPRING COIL FOR 17" LPL-TLL LOCAL |
| 140 | | 35509K0269A | Cover,LX52 HINGE COVER SPRING HEIGHT STAND |
| 150 | | 35509K0274A | Cover,LX52 PIECE SLIDE PROTECT L |
| 160 | | 35509K0273A | Cover,LX52 PIECE SLIDE PROTECT R |
| 170 | | 35509K0260A | Cover,LX52 SIDE COVER SLIDE ACETAL HEIGHT STAND |
| 180 | | 35509K0266A | Cover,LX52 REAR COVER SLIDE HEIGHT STAND |
| 190 | | 49519K0137B | Plate Assembly, STAND HINGE ASSY FOR HIEGHT STAND |
| 200 | | 35509K0258A | Cover, LX52 HINGE R |
| 210 | | 35509K0259A | Cover, LX52 HINGE L HEIGHT STAND |
| 220 | | 35509K0257A | Cover, LX52 HINGE BODY HEIGHT STAND |
| 230 | | 6410TPW003A | Power Cord, LP-33 & GFC18N<B90A+LS-60_1.87M_BLK LP-33 LS-60 1.87M - 250V 16A H05VV-F 3X0.75MM2 BLACK PCT N LONGWELL COMPANY |
| | | or 64109PP001A | Power Cord, CZHZ20050922010 DTIII-2P-05 DTII-3P-04 1.87M - 250V 10A H05VV-F3G0.75 BLACK VDE N |
| 240 | | MGJ30075901 | Cover, PRESS SBHG 1.0 SHIELD AL METAL(SBHG) |
| 250 | | 4940900022B | Knob, MAIN 5KEY LX52 TACK KNOB ADD SOURCE PRINTING |

* Note:Safety mark ⚠

| Ref. No. | | Part No. | Description |
|---|---|---|---|
| 010 | ⚠ | ABJ32229405 | Cabinet Assembly,L1953 . 19" NEW PATTERN TEXTURE FOR 30919C0019E -SILVER W/W |
| | | ABJ32229456 | Cabinet Assembly,L1953 . 19" NEW PATTERN TEXTURE FOR ACQ30262708 -SILVER PC |
| | | ABJ32229437 | Cabinet Assembly,L1953 . 19" NEW PATTERN TEXTURE FOR 30919C0030N -SILVER CN |
| | | ABJ32229406 | Cabinet Assembly,L1953 . 19" NEW PATTERN TEXTURE FOR 30919C0019F -BLACK W/W |
| | | ABJ32229438 | Cabinet Assembly,L1953 . 19" NEW PATTERN TEXTURE FOR 30919C0030P -BLACK CN |
| 020 | ⚠ | EAJ36380901 | LCD,Module-TFT,LM190E08-TLL2 DRIVER 19.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P7, 5ms, 160/160, TLI T-con, Lusem/Toshiba(Source/Gate), lamp Heesung, Diffuser x2+P |
| | | EAJ36380801 | LCD,Module-TFTLM190E08-TLL1 DRIVER 19.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P4, 5ms, 160/160, TLI T-con, Lusem/Toshiba(Source/Gate), lamp:Heesung, Diffuser x2 L |
| | | EAJ36381001 | LCD,Module-TFT,LM190E08-TLL3 DRIVER 19.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P4, 5ms, 160/160, TLI T-con, Magna/Toshiba(Source/Gate), lamp Heesung, Diffuser x2 L |
| 030 | ⚠ | ACQ30234341 | Cover Assembly,L1953H Baikal 19" DUAL+HEIGHT LPL-TLL ND local |
| | | ACQ30234343 | Cover Assembly,L1953H Baikal 19" Baikal HIPS DUAL+HEIGHT HSD ND Local |
| | | ACQ30234339 | Cover Assembly,L1953H Baikal 19" DUAL+HEIGHT+AUO-V4 ND |
| 040 | ⚠ | AAN32694601 | Base Assembly,ASSY LX53 BASE ASSY FOR NT LOCAL (3043900047A) LM57B NEW PATTER TEXTURE |
| | | AAN32694606 | Base Assembly,ASSY LX53 BASE ASSY FOR NT LOCAL PATTERN TEXTURE LM57B NEW PATTER TEXTURE |
| 050 | ⚠ | 35509K0256E | Cover,MOLD ABS Lx53H ABS Lx53 2 Hole(35509K0256A) |
| 060 | | 3520900038A | Indicator,LED&PRE AMP LX52 PMMA NON LED LENS |
| 070 | | MGJ37924403 | Plate,PRESS SPTE 0.3 LAMP SPTE SHIELD L1953 FOR LPL CI MODULE ND LOCAL |
| | | 49509K0267F | Plate,PRESS SPTE-C 0.3 LAMP SPTE SHIELD for 19' LPL 5ms module |
| 080 | | EBR37001501 | PCB Assembly,CONTROL T.T LM72A BAIKAL II 19-INCH BLUE RD 53 SERIAL |
| 090 | ⚠ | EBR36269401 | PCB Assembly,Power,POWER T.T LM-57C BAIKAL II - - |
| 100 | | EBU36999307 | Main Total Assembly,BAIKAL II MSTAR DUAL BRAND LM72A |
| 120 | | 49509S0034B | Plate,SHIELD LX52 REAR SHIELD-DUAL |
| | | MGJ37924108 | Plate,PRESS SBHG 0.8 REAR SECC SHIELD LX53 FOR LPL/AUO CI MODULE DUAL ND LOCAL |
| 130 | | 49709C0009E | Plate,CUTTING SUS301 COIL SWP 25*31 . LX52 HEIGHT STAND SPRING COIL NT-local |
| | | 49709C0009F | Plate,CUTTING SUS301 COIL SWP 25*31 . LX52HR. HEIGHT STAND SPRING COIL NT-local.LM190E08 |
| | | 49709C0009D | Plate,CUTTING SUS301 COIL SWP 25.5*25 . LX52 HEIGHT STAND SPRING COIL |
| 140 | | 35509K0269A | Cover,LX52 HINGE COVER SPRING HEIGHT STAND |
| 150 | | 35509K0274A | Cover,LX52 PIECE SLIDE PROTECT L |
| 160 | | 35509K0273A | Cover,LX52 PIECE SLIDE PROTECT R |
| 170 | | 35509K0260A | Cover,LX52 SIDE COVER SLIDE ACETAL HEIGHT STAND |
| 180 | | 35509K0266A | Cover,LX52 REAR COVER SLIDE HEIGHT STAND |
| 190 | | 49519K0137B | Plate Assembly, STAND HINGE ASSY FOR HIEGHT STAND |
| 200 | | 35509K0258A | Cover, LX52 HINGE R |
| 210 | | 35509K0259A | Cover, LX52 HINGE L HEIGHT STAND |
| 220 | | 35509K0257A | Cover, LX52 HINGE BODY HEIGHT STAND |
| 230 | | 6410TPW003A | Power Cord, LP-33 & GFC18N<B90A+LS-60_1.87M_BLK LP-33 LS-60 1.87M - 250V 16A H05VV-F 3X0.75MM2 BLACK PCT N LONGWELL COMPANY |
| | | or 64109PP001A | Power Cord, CZHZ20050922010 DTIII-2P-05 DTII-3P-04 1.87M - 250V 10A H05VV-F3G0.75 BLACK VDE N |
| 240 | | MGJ30075901 | Cover, PRESS SBHG 1.0 SHIELD AL METAL(SBHG) |
| 250 | | 4940900022B | Knob, MAIN 5KEY LX52 TACK KNOB ADD SOURCE PRINTING |

* Note:Safety mark ⚠

| Ref. No. | | Part No. | Description |
|---|---|---|---|
| 010 | ⚠ | ABJ32220459 | Cabinet Assembly,L1753 . 17" NEW PATTERN TEXTURE FOR ACQ30078011 -SILVER |
| | | ABJ32220470 | Cabinet Assembly,L1753 . 17" NEW PATTERN TEXTURE FOR 30919C0018N -SILVER |
| | | ABJ32220460 | Cabinet Assembly,L1753 . 17" NEW PATTERN TEXTURE FOR ACQ30078012 -BLACK |
| | | ABJ32220471 | Cabinet Assembly,L1753 . 17" SILVER ABJ32220460-CKD p/no -BLACK |
| 020 | ⚠ | EAJ36720102 | LCD,Module-TFTCLAA170EA07P Non-ZBD DRIVER 17INCH 1280X1024 300CD COLOR 72% 4/3 700:1 5ms, 16.7M color depth, 160/160, lamp wire length 150mm CHUNGHWA PICTURE TUBES, LTD. |
| | | EAJ36720101 | LCD,Module-TFT,LM190E08-TLL2 DRIVER 19.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P7, 5ms, 160/160, TLI T-con, Lusem/Toshiba(Source/Gate), lamp Heesung, Diffuser x2+P |
| | | EAJ34858001 | LCD,Module-TFT,HT170E01-300 ZBD DRIVER 17.0INCH 1280X1024 300CD COLOR 72% 5/4 800:1 4MASK, 5ms, 160/160 BOE HYDIS TECHNOLOGY |
| | | EAJ36379501 | LCD,Module-TFT,LM170E03-TLL2 DRIVER 17.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P6, 5ms, 160/160, TLI T-con, Lusem/Toshiba(Source/Gate), Diffuser x2+Prism x1, lamp wire 135mm LG PHILIPS LCD |
| | | EAJ36378001 | LCD,Module-TFT,LM170E03-TLL1 DRIVER 17.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P5, 5ms, 160/160, TLI T-con, Lusem/Toshiba(Source/Gate), Diffuser*2+Prism*1,lamp wire 135mm LG PHILIPS LCD |
| | | EAJ36380701 | LCD,Module-TFT,LM170E03-TLL3 DRIVER 17.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P5, 5ms, 160/160, TLI T-con, Magna/Toshiba(Source/Gate), Diffuser x2+Prism x1, lamp wire 135mm LG PHILIPS LCD |
| 030 | ⚠ | ACQ30378108 | Cover Assembly,L1752H ---- 17" DUAL+HEIGHT+AUO-VD MODULE |
| | | ACQ30378110 | Cover Assembly,L1752H ----- 17" DUAL+HEIGHT+LPL-TLL MODULE |
| | | ACQ30378115 | Cover Assembly,L1752H ----- 17" Baikal HIPS DUAL+HEIGHT+CPT MODULE ND Local |
| 040 | ⚠ | AAN32694601 | Base Assembly,ASSY LX53 BASE ASSY FOR NT LOCAL (3043900047A) LM57B NEW PATTER TEXTURE |
| | | AAN32694606 | Base Assembly,ASSY LX53 BASE ASSY FOR NT LOCAL PATTERN TEXTURE LM57B NEW PATTER TEXTURE |
| 050 | ⚠ | 35509K0256E | Cover,MOLD ABS Lx53H ABS Lx53 2 Hole(35509K0256A) |
| 060 | | 3520900038A | Indicator,LED&PRE AMP LX52 PMMA NON LED LENS |
| 070 | | MGJ37924303 | Plate,PRESS SPTE 0.3 LAMP SPTE SHIELD L1753 FOR LPL/AUO CI MODULE ND LOCCAL |
| | | 49509K0266A | Plate,SHIELD LX52 LAMP |
| 080 | | EBR37001301 | PCB Assembly,CONTROL T.T LM72A BAIKAL II 17-INCH BLUE RD 53 SERIAL |
| 090 | ⚠ | EBR36269401 | PCB Assembly,Power,POWER T.T LM-57C BAIKAL II - - |
| 100 | | EBU36999301 | Main Total Assembly,BAIKAL II MSTAR DUAL BRAND LM72A |
| 120 | | 49509S0034B | Plate,SHIELD LX52 REAR SHIELD-DUAL |
| | | MGJ37924108 | Plate,PRESS SBHG 0.8 REAR SECC SHIELD LX53 FOR LPL/AUO CI MODULE DUAL ND LOCAL |
| 130 | | 49709C0009D | Plate,CUTTING SUS301 COIL SWP 25.5*25 . LX52 HEIGHT STAND SPRING COIL |
| | | 49709C0009G | Plate,CUTTING SUS301 COIL SWP 25.5*25 . LX52 HEIGHT STAND SPRING COIL FOR 17" LPL-TLL LOCAL |
| 140 | | 35509K0269A | Cover,LX52 HINGE COVER SPRING HEIGHT STAND |
| 150 | | 35509K0274A | Cover,LX52 PIECE SLIDE PROTECT L |
| 160 | | 35509K0273A | Cover,LX52 PIECE SLIDE PROTECT R |
| 170 | | 35509K0260A | Cover,LX52 SIDE COVER SLIDE ACETAL HEIGHT STAND |
| 180 | | 35509K0266A | Cover,LX52 REAR COVER SLIDE HEIGHT STAND |
| 190 | | 49519K0137B | Plate Assembly, STAND HINGE ASSY FOR HIEGHT STAND |
| 200 | | 35509K0258A | Cover, LX52 HINGE R |
| 210 | | 35509K0259A | Cover, LX52 HINGE L HEIGHT STAND |
| 220 | | 35509K0257A | Cover, LX52 HINGE BODY HEIGHT STAND |
| 230 | | 6410TPW003A | Power Cord, LP-33 & GFC18N<B90A+LS-60_1.87M_BLK LP-33 LS-60 1.87M - 250V 16A H05VV-F 3X0.75MM2 BLACK PCT N LONGWELL COMPANY |
| | | or 64109PP001A | Power Cord, CZHZ20050922010 DTIII-2P-05 DTII-3P-04 1.87M - 250V 10A H05VV-F3G0.75 BLACK VDE N |
| 240 | | MGJ30075901 | Cover, PRESS SBHG 1.0 SHIELD AL METAL(SBHG) |
| 250 | | 4940900022B | Knob, MAIN 5KEY LX52 TACK KNOB ADD SOURCE PRINTING |

* Note:Safety mark ⚠

| Ref. No. | | Part No. | Description |
|---|---|---|---|
| 010 | ⚠ | ABJ32229458 | Cabinet Assembly,L1953 . 19" NEW PATTERN TEXTURE FOR ACQ30262710 -SILVER |
| | | ABJ32229469 | Cabinet Assembly, L1953HR . 19" L1953HR SILVER + DUAL + HEIGHT + LPL+ C/SKD -SILVER |
| | | ABJ32229459 | Cabinet Assembly,L1953 . 19" NEW PATTERN TEXTURE FOR ACQ30262711 -BLACK |
| | | ABJ32229470 | Cabinet Assembly,L1953 . 19" ABJ32229459-CKD P/NO -BLACK |
| 020 | ⚠ | EAJ36380901 | LCD,Module-TFT,LM190E08-TLL2 DRIVER 19.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P7, 5ms, 160/160, TLI T-con, Lusem/Toshiba(Source/Gate), lamp Heesung, Diffuser x2+Prism x1, lamp wire 160mm, depth 15.5T LG PHILIPS LCD |
| | | EAJ36380801 | LCD,Module-TFT,LM190E08-TLL1 DRIVER 19.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P4, 5ms, 160/160, TLI T-con, Lusem/Toshiba(Source/Gate), lamp:Heesung, Diffuser x2+LC213x1, lamp wire 160mm, depth 15.5T LG PHILIPS LCD |
| | | EAJ36381001 | LCD,Module-TFT,LM190E08-TLL3 DRIVER 19.0INCH 1280X1024 300CD COLOR 72% 4/3 800:1 P4, 5ms, 160/160, TLI T-con, Magna/Toshiba(Source/Gate), lamp Heesung, Diffuser x2+LC213 x1, lamp wire 160mm, depth 15.5T LG PHILIPS LCD |
| | | EAJ32176101 | LCD,Module-TFT,M190EG02-V4 ZBD DRIVER 19.0INCH 1280X1024 300CD COLOR 72% 5/4 800 VS 1 5MS, 160/160, 2CH-LVDS, 4LAMP AU OPTRONICS CORP |
| | | 6304FHS014B | LCD,Module-TFT,HSD190ME13-D10(700VS1) DRIVER 19INCH 1280X1024 300CD COLOR 72% 4/3 700:1 - HANNSTAR DISPLAY CORPORATION |
| | | 6304FHS014C | LCD,Module-TFT,HSD190ME13-D10 DRIVER 19INCH 1280X1024 300CD COLOR 72% 4/3 700:1 - HANNSTAR DISPLAY CORPORATION |
| 030 | ⚠ | ACQ30234341 | Cover Assembly,L1953H Baikal 19" DUAL+HEIGHT LPL-TLL ND local |
| | | ACQ30234343 | Cover Assembly,L1953H Baikal 19" Baikal HIPS DUAL+HEIGHT HSD ND Local |
| | | ACQ30234339 | Cover Assembly,L1953H Baikal 19" DUAL+HEIGHT+AUO-V4 ND |
| 040 | ⚠ | AAN32694601 | Base Assembly,ASSY LX53 BASE ASSY FOR NT LOCAL (3043900047A) LM57B NEW PATTER TEXTURE |
| | | AAN32694606 | Base Assembly,ASSY LX53 BASE ASSY FOR NT LOCAL PATTERN TEXTURE LM57B NEW PATTER TEXTURE |
| 050 | ⚠ | 35509K0256E | Cover,MOLD ABS Lx53H ABS Lx53 2 Hole(35509K0256A) |
| 060 | | 3520900038A | Indicator,LED&PRE AMP LX52 PMMA NON LED LENS |
| 070 | | MGJ37924403 | Plate,PRESS SPTE 0.3 LAMP SPTE SHIELD L1953 FOR LPL CI MODULE ND LOCAL |
| | | 49509K0267F | Plate,PRESS SPTE-C 0.3 LAMP SPTE SHIELD for 19' LPL 5ms module |
| 080 | | EBR37001501 | PCB Assembly,CONTROL T.T LM72A BAIKAL II 19-INCH BLUE RD 53 SERIAL |
| 090 | ⚠ | EBR36269401 | PCB Assembly,Power,POWER T.T LM-57C BAIKAL II - - |
| 100 | | EBU36999307 | Main Total Assembly,BAIKAL II MSTAR DUAL BRAND LM72A |
| 120 | | 49509S0034B | Plate,SHIELD LX52 REAR SHIELD-DUAL |
| | | MGJ37924108 | Plate,PRESS SBHG 0.8 REAR SECC SHIELD LX53 FOR LPL/AUO CI MODULE DUAL ND LOCAL |
| 130 | | 49709C0009E | Plate,CUTTING SUS301 COIL SWP 25*31 . LX52 HEIGHT STAND SPRING COIL NT-local |
| | | 49709C0009F | Plate,CUTTING SUS301 COIL SWP 25*31 . LX52HR. HEIGHT STAND SPRING COIL NT-local.LM190E08 |
| | | 49709C0009D | Plate,CUTTING SUS301 COIL SWP 25.5*25 . LX52 HEIGHT STAND SPRING COIL |
| 140 | | 35509K0269A | Cover,LX52 HINGE COVER SPRING HEIGHT STAND |
| 150 | | 35509K0274A | Cover,LX52 PIECE SLIDE PROTECT L |
| 160 | | 35509K0273A | Cover,LX52 PIECE SLIDE PROTECT R |
| 170 | | 35509K0260A | Cover,LX52 SIDE COVER SLIDE ACETAL HEIGHT STAND |
| 180 | | 35509K0266A | Cover,LX52 REAR COVER SLIDE HEIGHT STAND |
| 190 | | 49519K0137B | Plate Assembly, STAND HINGE ASSY FOR HIEGHT STAND |
| 200 | | 35509K0258A | Cover, LX52 HINGE R |
| 210 | | 35509K0259A | Cover, LX52 HINGE L HEIGHT STAND |
| 220 | | 35509K0257A | Cover, LX52 HINGE BODY HEIGHT STAND |
| 230 | | 6410TPW003A | Power Cord, LP-33 & GFC18N<B90A+LS-60_1.87M_BLK LP-33 LS-60 1.87M - 250V 16A H05VV-F 3X0.75MM2 BLACK PCT N LONGWELL COMPANY |
| | | or 64109PP001A | Power Cord, CZHZ20050922010 DTIII-2P-05 DTII-3P-04 1.87M - 250V 10A H05VV-F3G0.75 BLACK VDE N |
| 240 | | MGJ30075901 | Cover, PRESS SBHG 1.0 SHIELD AL METAL(SBHG) |
| 250 | | 4940900022B | Knob, MAIN 5KEY LX52 TACK KNOB ADD SOURCE PRINTING |

# REPLACEMENT PARTS LIST

**CAUTION:** BEFORE REPLACING ANY OF THESE COMPONENTS,
READ CAREFULLY THE **SAFETY PRECAUTIONS** IN THIS MANUAL.
**MAIN BOARD AND POWER BOARD PARTS ARE DIFFERENT.**
* NOTE : **S** SAFETY Mark ⚠
**AL** ALTERNATIVE PARTS

DATE: 2007. 01. 27.

| *S | *AL | LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION |
|---|---|---|---|---|
| | | **MAIN BOARD** | | |
| | | CAPACITORS | | |
| | | C501 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C502 | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V |
| | | C503 | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V |
| | | C504 | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V |
| | | C505 | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V |
| | | C506 | 0CC102CK41A | C1608C0G1H102JT 1nF 5% 50V C |
| | | C507 | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V |
| | | C508 | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V |
| | | C509 | 0CC270CK41A | C1608C0G1H270JT 27pF 5% 50V |
| | | C510 | 0CC270CK41A | C1608C0G1H270JT 27pF 5% 50V |
| | | C511 | 0CK103CK51A | 0603B103K500CT 10nF 10% 50V |
| | | C512 | 0CK103CK51A | 0603B103K500CT 10nF 10% 50V |
| | | C513 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C514 | 0CK224CF56A | 0603B224K160CT 220nF 10% 16V |
| | | C515 | 0CE106CF638 | SHL5.0TP16VB10M 10uF 20% 16V |
| | | C516 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C517 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C518 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C519 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C520 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C521 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C522 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C523 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C524 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C525 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C526 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C527 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C528 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C529 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C530 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C531 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C532 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C533 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C534 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C535 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C536 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C537 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C538 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C701 | 0CC101CK41A | C1608C0G1H101JT 100pF 5% 50V |
| | | C702 | 0CC101CK41A | C1608C0G1H101JT 100pF 5% 50V |
| | | C703 | 0CC680CK41A | C1608C0G1H680JT 68pF 5% 50V |
| | | C704 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C705 | 0CC680CK41A | C1608C0G1H680JT 68pF 5% 50V |
| | | C706 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C707 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C708 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C709 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C710 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C711 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C712 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C713 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C714 | 0CC680CK41A | C1608C0G1H680JT 68pF 5% 50V |

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| *S | *AL | LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION |
|---|---|---|---|---|
| | | C715 | 0CC680CK41A | C1608C0G1H680JT 68pF 5% 50V |
| | | C716 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C717 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C718 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C719 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C720 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C723 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C724 | 0CK105CD56A | C1608X7R1A105KT 1uF 10% 10V |
| | | C725 | 0CC101CK41A | C1608C0G1H101JT 100pF 5% 50V |
| | | C901 | 0CE107EF610 | KMG16VB100M 100uF 20% 16V 12 |
| | | C902 | 0CK103CK51A | 0603B103K500CT 10nF 10% 50V |
| | | C903 | 0CC102CK41A | C1608C0G1H102JT 1nF 5% 50V C |
| | | C904 | 0CK105CD56A | C1608X7R1A105KT 1uF 10% 10V |
| | | C905 | 0CE107EF610 | KMG16VB100M 100uF 20% 16V 12 |
| | | C906 | 0CE107EF610 | KMG16VB100M 100uF 20% 16V 12 |
| | | C907 | 0CE107EF610 | KMG16VB100M 100uF 20% 16V 12 |
| | | C908 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C909 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C910 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C911 | 0CK102CK56A | 0603B102K500CT 1nF 10% 50V X |
| | | C912 | 0CK102CK56A | 0603B102K500CT 1nF 10% 50V X |
| | | C913 | 0CK102CK56A | 0603B102K500CT 1nF 10% 50V X |
| | | C914 | 0CE227EF610 | KMG16VB220M 220uF 20% 16V 21 |
| | | DIODEs | | |
| | | D701 | 0DS226009AA | KDS226 1.2V 85V 300MA 2A 4NS |
| | | D702 | 0DS226009AA | KDS226 1.2V 85V 300MA 2A 4NS |
| | | D703 | 0DS226009AA | KDS226 1.2V 85V 300MA 2A 4NS |
| | | D704 | 0DS226009AA | KDS226 1.2V 85V 300MA 2A 4NS |
| | | D705 | 0DS226009AA | KDS226 1.2V 85V 300MA 2A 4NS |
| | | D706 | 0DS226009AA | KDS226 1.2V 85V 300MA 2A 4NS |
| | | D707 | 0DS226009AA | KDS226 1.2V 85V 300MA 2A 4NS |
| | | D708 | 0DS226009AA | KDS226 1.2V 85V 300MA 2A 4NS |
| | | D709 | 0DS226009AA | KDS226 1.2V 85V 300MA 2A 4NS |
| | | D710 | 0DS226009AA | KDS226 1.2V 85V 300MA 2A 4NS |
| | | D711 | 0DS226009AA | KDS226 1.2V 85V 300MA 2A 4NS |
| | | D712 | 0DSON00138A | MMBD301LT1G 600MV 30V - - 1. |
| | | D713 | 0DD184009AA | KDS184 KDS184 TP KEC - 85V - |
| | | D714 | 0DSON00138A | MMBD301LT1G 600MV 30V - - 1. |
| | | D715 | 0DD184009AA | KDS184 KDS184 TP KEC - 85V - |
| | | ZD701 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD702 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD703 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD704 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD705 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD708 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD709 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD710 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ICs | | |
| | | U501 | 0IPRP00784A | FE251MOH-LF(TSUMO56WHJ-LF) 3 |
| | | U502 | EAN30510501 | L1952HQ-SFQ ARDRQP TSUMO G |

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| *S | *AL | LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION |
|---|---|---|---|---|
| | | U503 | 0ISG240860B | M24C08-WMN6TP 8KBIT 1KX8BIT |
| | | U701 | 0IMMR00014A | M24C02-RMN6TP 2KBIT 256X8BIT |
| | | U702 | 0IMMR00014A | M24C02-RMN6TP 2KBIT 256X8BIT |
| | | U901 | 0IPMGFA003G | FAN1117AS33X 4.8TO10.3V 3.3V |
| | | U902 | 0IPMGSG016A | LD1086D2T18TR 3.4TO30V 1.8V |
| | | FILTERs | | |
| | | L901 | 0LCML00003B | MLB-201209-0120P-N2 120OHM 2 |
| | | L902 | 0LCML00003B | MLB-201209-0120P-N2 120OHM 2 |
| | | L903 | 0LCML00003B | MLB-201209-0120P-N2 120OHM 2 |
| | | TRANSISTOR | | |
| | | Q501 | 0TR390409AE | KST3904 NPN 6V 60V 40V 200MA |
| | | Q701 | 0TR390609FA | KST3906-MTF PNP -5V -40V -40 |
| | | Q702 | 0TR390609FA | KST3906-MTF PNP -5V -40V -40 |
| | | RESISTORs | | |
| | | R501 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R502 | 0RJ0562D677 | MCR03EZPJ560 56OHM 5% 1/10W |
| | | R503 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R504 | 0RJ0562D677 | MCR03EZPJ560 56OHM 5% 1/10W |
| | | R505 | 0RJ4700D677 | MCR03EZPJ471 470OHM 5% 1/10W |
| | | R506 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R507 | 0RJ0562D677 | MCR03EZPJ560 56OHM 5% 1/10W |
| | | R508 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R509 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R510 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R511 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R512 | 0RJ4700D677 | MCR03EZPJ471 470OHM 5% 1/10W |
| | | R513 | 0RJ4700D677 | MCR03EZPJ471 470OHM 5% 1/10W |
| | | R516 | 0RJ3900D677 | MCR03EZPJ391 390OHM 5% 1/10W |
| | | R517 | 0RJ1002D677 | MCR03EZPJ103 10KOHM 5% 1/10W |
| | | R518 | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1 |
| | | R519 | 0RJ1502D677 | MCR03EZPJ153 15KOHM 5% 1/10W |
| | | R522 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R523 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R524 | 0RJ1002D677 | MCR03EZPJ103 10KOHM 5% 1/10W |
| | | R525 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R526 | 0RJ0332D677 | MCR03EZPJ330 33OHM 5% 1/10W |
| | | R527 | 0RJ0332D677 | MCR03EZPJ330 33OHM 5% 1/10W |
| | | R530 | 0RJ1002D677 | MCR03EZPJ103 10KOHM 5% 1/10W |
| | | R701 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R702 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R703 | 0RJ0332D677 | MCR03EZPJ330 33OHM 5% 1/10W |
| | | R704 | 0RJ0102D677 | MCR03EZPJ100 10OHM 5% 1/10W |
| | | R705 | 0RJ0102D677 | MCR03EZPJ100 10OHM 5% 1/10W |
| | | R706 | 0RJ0102D677 | MCR03EZPJ100 10OHM 5% 1/10W |
| | | R707 | 0RJ0102D677 | MCR03EZPJ100 10OHM 5% 1/10W |
| | | R708 | 0RJ0102D677 | MCR03EZPJ100 10OHM 5% 1/10W |
| | | R709 | 0RJ0102D677 | MCR03EZPJ100 10OHM 5% 1/10W |
| | | R710 | 0RJ0332D677 | MCR03EZPJ330 33OHM 5% 1/10W |
| | | R711 | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1 |
| | | R712 | 0RJ0102D677 | MCR03EZPJ100 10OHM 5% 1/10W |
| | | R713 | 0RJ0102D677 | MCR03EZPJ100 10OHM 5% 1/10W |
| | | R714 | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W |
| | | R715 | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1 |
| | | R716 | 0RJ0332D677 | MCR03EZPJ330 33OHM 5% 1/10W |
| | | R717 | 0RJ0752D677 | MCR03EZPJ750 75OHM 5% 1/10W |
| | | R718 | 0RJ0682D677 | MCR03EZPJ680 68OHM 5% 1/10W |

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| *S | *AL | LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION |
|---|---|---|---|---|
| | | R719 | 0RJ0682D677 | MCR03EZPJ680 68OHM 5% 1/10W |
| | | R720 | 0RJ0332D677 | MCR03EZPJ330 33OHM 5% 1/10W |
| | | R721 | 0RJ0752D677 | MCR03EZPJ750 75OHM 5% 1/10W |
| | | R722 | 0RJ0752D677 | MCR03EZPJ750 75OHM 5% 1/10W |
| | | R723 | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1 |
| | | R724 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R725 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R726 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R727 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R728 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R729 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R730 | 0RJ2200D677 | MCR03EZPJ221 220OHM 5% 1/10W |
| | | R731 | 0RJ2200D677 | MCR03EZPJ221 220OHM 5% 1/10W |
| | | R732 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R733 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R735 | 0RJ2001D677 | MCR03EZPJ202 2KOHM 5% 1/10W |
| | | R736 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R737 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R738 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R739 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R903 | 0RJ5600D677 | MCR03EZPJ561 560OHM 5% 1/10W |
| | | R904 | 0RJ2202D677 | MCR03EZPJ223 22KOHM 5% 1/10W |
| | | R905 | 0RJ2702D677 | MCR03EZPJ273 27KOHM 5% 1/10W |
| | | R907 | 0RX0331K668 | RSD02F4J3R30 3.3OHM 5% 2W 12 |
| | | R909 | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1 |
| | | R910 | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1 |
| | | OTHERs | | |
| | | J901 | 6630TGA005B | QH11121-DN0-D DVI 24P 1.90MM |
| | | J902 | 6630G100316 | DZ11AA1-HVG-PF D-SUB 15P 2.2 |
| | | J904 | 6602T20008E | SMW200-06P 6P 2.00MM 1R STRA |
| | | J905 | 6602T20008K | SMW200-11P 11P 2.00MM 1R STR |
| | | J906 | 6630V90219A | SMW200-28C 28P 2.0MM 2R STRA |
| | | Q901 | 0TFVI80067A | SI3865BDV(E3) N-CHANNEL MOSF |
| | | X501 | 6212AA2004F | HC-49/U 14.31818MHZ 30PPM(TX |
| | | **CONTROL BOARD** | | |
| | | R1 | 0RD7501Q609 | RDM94T1J7K50 7.5KOHM 5% 1/4W |
| | | R2 | 0RD7501Q609 | RDM94T1J7K50 7.5KOHM 5% 1/4W |
| | | R3 | 0RD1801Q609 | RDM94T1J1K80 1.8KOHM 5% 1/4W |
| | | R4 | 0RD1201Q609 | RDM94T1J1K20 1.2KOHM 5% 1/4W |
| | | R5 | 0RD1201Q609 | RDM94T1J1K20 1.2KOHM 5% 1/4W |
| | | SW1 | 140-058E | THVV502GBC 1C1P 12VDC 0.05A |
| | | SW2 | 140-058E | THVV502GBC 1C1P 12VDC 0.05A |
| | | SW3 | 140-058E | THVV502GBC 1C1P 12VDC 0.05A |
| | | SW4 | 140-058E | THVV502GBC 1C1P 12VDC 0.05A |
| | | SW5 | 140-058E | THVV502GBC 1C1P 12VDC 0.05A |
| | | ZD1 | 0DZ560009AG | GDZJ5.6B 5.6V 5.45TO5.73V 60 |
| | | ZD2 | 0DZ560009AG | GDZJ5.6B 5.6V 5.45TO5.73V 60 |
| | | ZD3 | 0DZ560009AG | GDZJ5.6B 5.6V 5.45TO5.73V 60 |
| | | J1 | 6602T20009E | SMAW200-06P 6P 2.00MM 1R ANG |
| | | J2 | 6602T20009B | SMAW200-03P 3P 2.00MM 1R ANG |
| | | J3 | 6602T20009B | SMAW200-03P 3P 2.00MM 1R ANG |
| | | LED1 | EAV30486601 | BL-BY0BK201G-AB-LC4.5 ROUND |
| | | **POWER BOARD** | | |
| | | CAPACITORS | | |
| ⚠ | | C101 | 0CZZ9ST017A | AL EL CAPACITOR 100UF 450V 2 |
| | | C103 | 0CZZ9ST014A | AL EL CAPACITOR 33UF 50V 20% |

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| *S | *AL | LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION |
|---|---|---|---|---|
| | | C104 | 0CH5271K416 | 270PF 2012 50V 5% NP0 R/TP |
| | | C105 | 0CZZ9ST013A | AL EL CAPACITOR 0.47UF 50V 2 |
| | | C106 | 0CK222DK4DA | 2200PF 2012 50V 5% COG R/TP |
| | | C107 | 0CK1040K945 | "0.1UF D 50V 80%,-20% F(Y5V)" |
| | | C201 | 0CKZTTA002E | EKR3A102K09FK5 SAMWHA 1KV 10 |
| | | C202 | 0CZZ9ST021A | AL EL CAPACITOR 1000UF 25V 2 |
| | | C203 | 0CZZ9ST020A | AL EL CAPACITOR 680UF 25V 20 |
| | | C204 | 0CZZ9ST018A | AL EL CAPACITOR 1000UF 16V 2 |
| | | C205 | 0CZZ9ST018A | AL EL CAPACITOR 1000UF 16V 2 |
| | | C206 | 0CZZ9ST021A | AL EL CAPACITOR 1000UF 25V 2 |
| | | C207 | 0CZZ9ST019A | AL EL CAPACITOR 470UF 25V 20 |
| | | C208 | 0CKZTTA002B | 330PF 1KV K R TP5.0 TAPING . |
| | | C210 | 0CH3104K566 | 0.1UF 50V 10% X7R 2012 R/TP |
| | | C301 | 0CZZTCT006D | C3216X7R1E225M TDK 25V 2.2UF |
| | | C303 | 0CZZTCT006D | C3216X7R1E225M TDK 25V 2.2UF |
| | | C304 | 0CZZTCT006D | C3216X7R1E225M TDK 25V 2.2UF |
| | | C305 | 0CZZTCT006D | C3216X7R1E225M TDK 25V 2.2UF |
| | | C306 | 0CK224DH56A | 0.22UF 2012 25V 10% R/TP X7R |
| | | C307 | 0CH3104K566 | 0.1UF 50V 10% X7R 2012 R/TP |
| | | C308 | 0CK105DH56A | 1UF 2012 25V 10% X7R R/TP |
| | | C309 | 0CK224DH56A | 0.22UF 2012 25V 10% R/TP X7R |
| | | C310 | 0CK105DH56A | 1UF 2012 25V 10% X7R R/TP |
| | | C313 | 0CH2393K516 | 39000PF 50V 10% B(Y5P) 2012 |
| | | C314 | 0CK152DK51A | 1500PF 2012 50V 10% B(Y5P) R |
| | | C315 | 0CH3103K516 | 10000PF 50V 10% B(Y5P) 2012 |
| | | C317 | 0CH5221K416 | 220PF 50V 5% NP0 2012 R/TP |
| | | C320 | 0CZZTCT006D | C3216X7R1E225M TDK 25V 2.2UF |
| | | C402 | 0CK22201510 | 2200PF D 1KV 10% B(Y5P) R |
| | | C403 | 0CZZ9ST028A | CERAMIC DISK 10PF 6KV 5% TR |
| | | C404 | 0CH2153K516 | 15000PF 50V 10% B(Y5P) 2012 |
| | | C405 | 0CK22201510 | 2200PF D 1KV 10% B(Y5P) R |
| | | C406 | 0CZZ9ST028A | CERAMIC DISK 10PF 6KV 5% TR |
| | | C407 | 0CH2153K516 | 15000PF 50V 10% B(Y5P) 2012 |
| | | C409 | 0CK22201510 | 2200PF D 1KV 10% B(Y5P) R |
| | | C410 | 0CZZ9ST028A | CERAMIC DISK 10PF 6KV 5% TR |
| | | C411 | 0CH2153K516 | 15000PF 50V 10% B(Y5P) 2012 |
| | | C412 | 0CK22201510 | 2200PF D 1KV 10% B(Y5P) R |
| | | C413 | 0CZZ9ST028A | CERAMIC DISK 10PF 6KV 5% TR |
| | | C414 | 0CH2153K516 | 15000PF 50V 10% B(Y5P) 2012 |
| | | C415 | 0CH2222K516 | 2200PF 50V 10% B(Y5P) 2012 R |
| | | C417 | 0CH2222K516 | 2200PF 50V 10% B(Y5P) 2012 R |
| | | C418 | 0CH2222K516 | 2200PF 50V 10% B(Y5P) 2012 R |
| | | C419 | 0CH2222K516 | 2200PF 50V 10% B(Y5P) 2012 R |
| ⚠ | | CX101 | 0CZZ9ST025A | FILM CAPACITOR 0.47UF 275V 1 |
| ⚠ | | CY101 | 0CZZ9ST024A | "Y CAPACITOR 100PF 250V 10%,-" |
| ⚠ | | CY102 | 0CZZ9ST024A | "Y CAPACITOR 100PF 250V 10%,-" |
| ⚠ | | CY104 | 0CZZ9ST023A | "Y CAPACITOR 4700PF 250V 20%," |
| | | DIODEs | | |
| ⚠ | | BD101 | 0DRTW00121A | D2SB60-1121 TIWAN SEMI ST GB |
| | | D101 | 0DRDI00234A | PR1007 DIODES TAPING52 DO41 |
| | | D102 | 0DRDI00244A | 1N4007/L DIODES TAPING52 DO4 |
| | | D103 | 0DSGF00019A | 1N4148 GULF TP DO35 100V 0.1 |
| | | D201 | 0DRNH00140A | FCH10U15 NIHON INTER BULK TO |
| | | D202 | 0DRNH00130A | FCH10U10 NIHON INTER BULK TO |
| | | D306 | 0DSGD00048A | MM4148 GRANDE REEL TAPING LL |
| | | D401 | 0DSDI00038A | "BAV99-(F),LF DIODES R/TP SOT" |
| | | D402 | 0DSDI00038A | "BAV99-(F),LF DIODES R/TP SOT" |
| | | D403 | 0DSDI00038A | "BAV99-(F),LF DIODES R/TP SOT" |
| | | D404 | 0DSDI00038A | "BAV99-(F),LF DIODES R/TP SOT" |
| | | D405 | 0DSDI00038A | "BAV99-(F),LF DIODES R/TP SOT" |

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| *S | *AL | LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION |
|---|---|---|---|---|
| | | D406 | 0DSDI00038A | "BAV99-(F),LF DIODES R/TP SOT" |
| | | D407 | 0DSDI00038A | "BAV99-(F),LF DIODES R/TP SOT" |
| | | D408 | 0DSDI00038A | "BAV99-(F),LF DIODES R/TP SOT" |
| | | ZD101 | 0DZ330009CC | MTZJ3.3B TP ROHM-K DO34 - 3. |
| | | ZD301 | 0DZGD00128A | ZMM5231B GRANDE REEL TAPING |
| | | TRANSISTORs & ICs | | |
| ⚠ | | Q101 | 0TF760000AD | SSS7N60B FAIRCHILD ST TO220F |
| | | Q301 | 0TR144009AI | DTA144EK CHIP TP ROHM - - |
| | | Q302 | 0TR144009AH | DTC144EK CHIP TP ROHM - - |
| | | Q303 | 0TRKE80046A | 2N3904S KEC R/TP SOT23 60V 2 |
| | | Q304 | 0TR390609DC | 2N3906S-RTK KEC REEL TAPING |
| | | Q305 | 0TFDI80001A | 2N7002 DIODES R/TP SOT23 60V |
| | | Q306 | 0TFDI80001A | 2N7002 DIODES R/TP SOT23 60V |
| | | Q307 | 0TR390609DC | 2N3906S-RTK KEC REEL TAPING |
| | | Q308 | 0TRKE80046A | 2N3904S KEC R/TP SOT23 60V 2 |
| ⚠ | | U101 | 0IPMG78425A | FAN7601 FAIRCHILD DIP-8P BUL |
| | | U201 | 0IPMG78424A | "AZ431-A BCD 3P,TO-92 TAPING" |
| | | U301 | 0IPMG78426A | OZL68GN O2MICRO 20P SOP BULK |
| | | U303 | 0TFAN00001A | AP4511GD ADVANCED POWER ELEC |
| | | U304 | 0TFAN00001A | AP4511GD ADVANCED POWER ELEC |
| ⚠ | | PC201 | 0IPMG78432A | "LTV-817M-V(C) LITEON 4P, WID" |
| | | RESISTORs | | |
| ⚠ | | R101 | 0RJ4703G676 | 470K OHM 1/4 W 5% 3216 R/TP |
| | | R102 | 0RJ6801E472 | 6800 OHM 1/8 W 1% 2012 R/TP |
| | | R103 | 0RH1004D622 | 1M OHM 1 / 10 W 2012 5.00% D |
| | | R104 | 0RH1001D622 | 1K OHM 1 / 10 W 2012 5.00% D |
| | | R105 | 0RD0912Q609 | 91 OHM 1/4 W (3.4) 5% TA52 |
| | | R106 | 0RH2201D622 | 2.2K OHM 1 / 10 W 2012 5.00% |
| | | R107 | 0RD8203A609 | 820K OHM 1/2 W(7.0) 5.00% TA |
| | | R108 | 0RD4702A609 | 47K OHM 1/2 W(7.0) 5.00% TA5 |
| | | R109 | 0RX0560J609 | 0.56OHM 1 W 5% TA52 |
| | | R110 | 0RX1003K607 | 100KOHM 2 W 5% TA62 |
| | | R111 | 0RD0471Q609 | 4.70 1/4W(3 5% TA52 |
| | | R112 | 0RJ1302E472 | 13K OHM 1/8 W 1% 2012 R/TP |
| ⚠ | | R115 | 0RJ4703G676 | 470K OHM 1/4 W 5% 3216 R/TP |
| ⚠ | | R116 | 0RJ4703G676 | 470K OHM 1/4 W 5% 3216 R/TP |
| | | R117 | 0RH2403D622 | 240K OHM 1 / 10 W 2012 5.00% |
| | | R118 | 0RH2403D622 | 240K OHM 1 / 10 W 2012 5.00% |
| | | R202 | 0RX0242K665 | 24 OHM 2 W 5% SF |
| | | R204 | 0RN3002F409 | 30K OHM 1/6 W 1.00% TA52 |
| | | R205 | 0RN2201F409 | 2.2K OHM 1/6 W 1.00% TA52 |
| | | R206 | 0RJ1601E472 | 1.6K OHM 1/8 W 1% 2012 R/TP |
| | | R207 | 0RH1001D622 | 1K OHM 1 / 10 W 2012 5.00% D |
| | | R208 | 0RH6800D622 | 680 OHM 1 / 10 W 2012 5.00% |
| | | R209 | 0RH1001D622 | 1K OHM 1 / 10 W 2012 5.00% D |
| | | R211 | 0RJ1001G476 | 1K OHM 1/4 W 1% 3216 R/TP |
| | | R301 | 0RD1001Q609 | 1K OHM 1/4 W(3.4) 5.00% TA52 |
| | | R303 | 0RH0222D622 | 22 OHM 1 / 10 W 2012 5.00% D |
| | | R304 | 0RD1002Q609 | 10K OHM 1/4 W(3.4) 5.00% TA5 |
| | | R309 | 0RN1502F409 | 15K OHM 1/6 W 1.00% TA52 |
| | | R310 | 0RH1004D622 | 1M OHM 1 / 10 W 2012 5.00% D |
| | | R311 | 0RH1502D422 | "15K , 1/10W 1% TP" |
| | | R313 | 0RJ6202E472 | 62K OHM 1/8 W 1% 2012 R/TP |
| | | R315 | 0RH2001D622 | 2K OHM 1 / 10 W 2012 5.00% D |
| | | R316 | 0RH2001D622 | 2K OHM 1 / 10 W 2012 5.00% D |
| | | R317 | 0RJ3303E472 | 330000 OHM 1/8 W 1% 2012 R/T |
| | | R318 | 0RJ1503E472 | 150K OHM 1/8 W 1% 2012 R/TP |
| | | R319 | 0RH1303D622 | 130K OHM 1 / 10 W 2012 5.00% |

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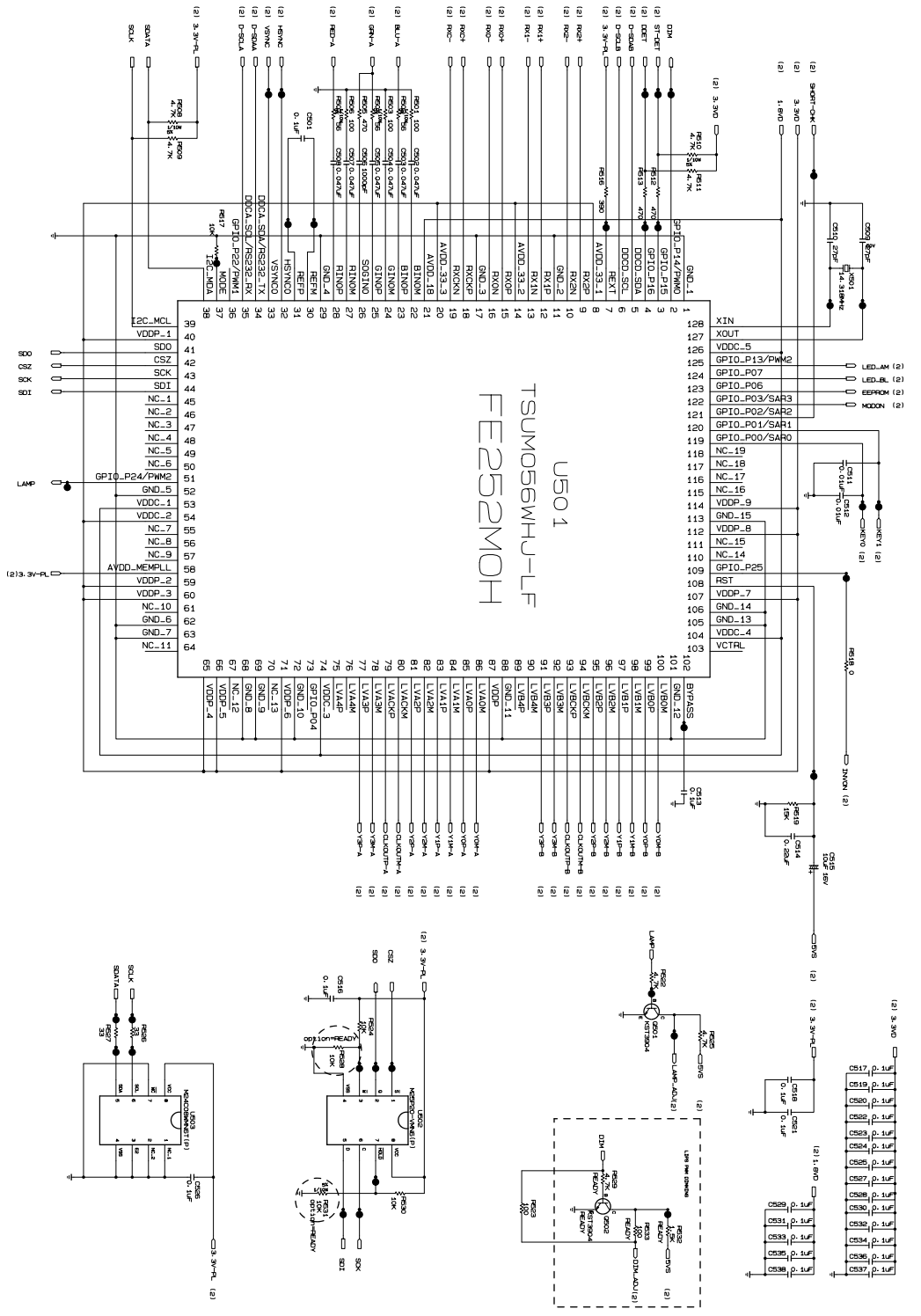
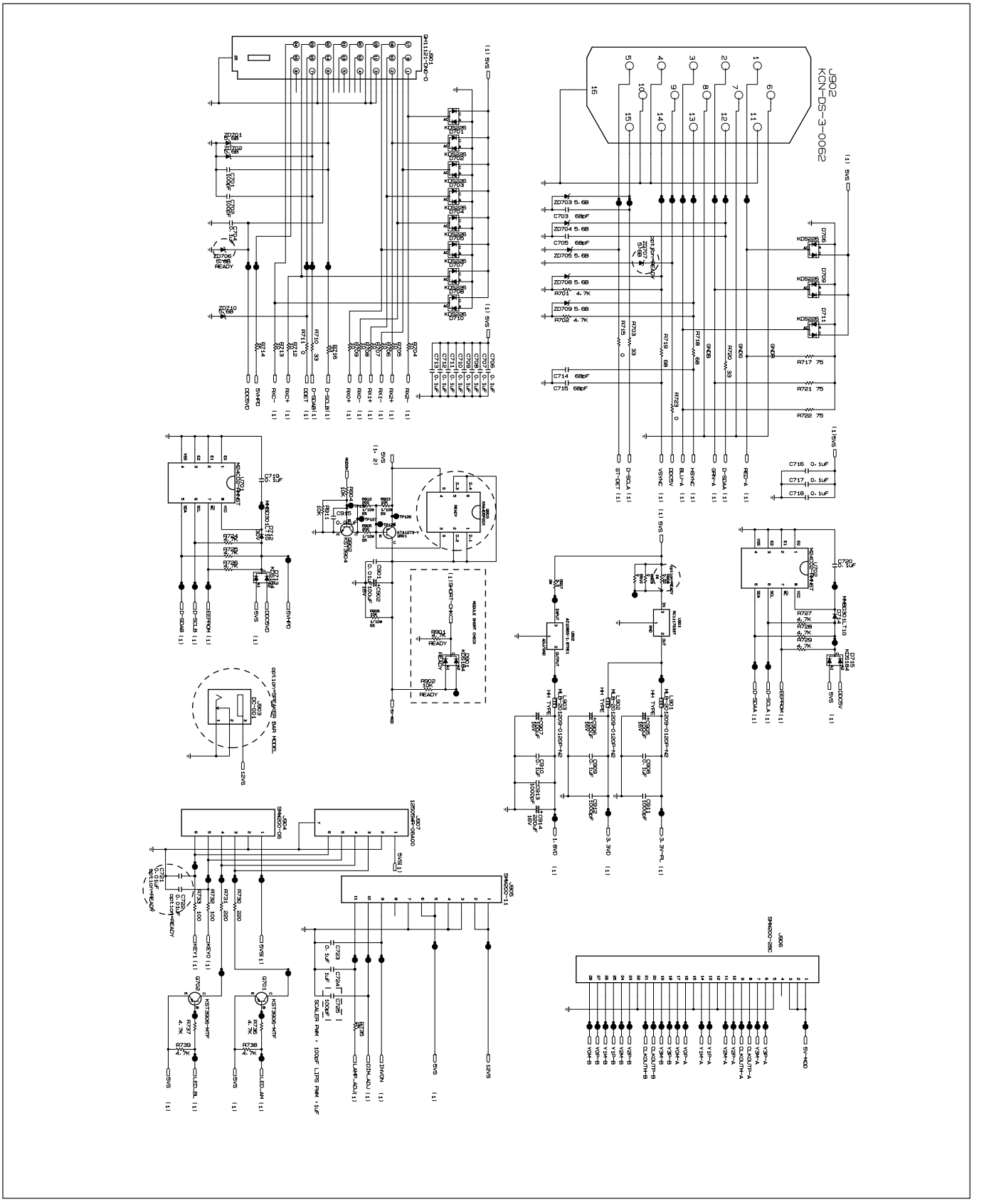
| *S | *AL | LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION |
|---|---|---|---|---|
| | | R320 | 0RH1502D422 | "15K , 1/10W 1% TP" |
| | | R321 | 0RH1002D422 | 10K OHM 1/10 W 1% 2012 R/TP |
| | | R401 | 0RJ1001G476 | 1K OHM 1/4 W 1% 3216 R/TP |
| | | R402 | 0RJ1001G476 | 1K OHM 1/4 W 1% 3216 R/TP |
| | | R403 | 0RJ1001G476 | 1K OHM 1/4 W 1% 3216 R/TP |
| | | R404 | 0RJ1001G476 | 1K OHM 1/4 W 1% 3216 R/TP |
| | | R406 | 0RJ3600E472 | 360 OHM 1/8 W 1% 2012 R/TP |
| | | R407 | 0RJ3600E472 | 360 OHM 1/8 W 1% 2012 R/TP |
| | | R408 | 0RJ3600E472 | 360 OHM 1/8 W 1% 2012 R/TP |
| | | R409 | 0RJ3600E472 | 360 OHM 1/8 W 1% 2012 R/TP |
| | | TH101 | 6322A00035A | 10D2-07 SEMITEC 10OHM 15% L1 |
| | | TRANSFORMER | | |
| ⚠ | | T101 | 61709MC011A | EER3016 430UH LX52 LIPS SMPS |
| ⚠ | | T301 | 61709MC010A | EFD-2124 95UH INVERTER TRANS |
| ⚠ | | T302 | 61709MC010A | EFD-2124 95UH INVERTER TRANS |
| | | OTHERs | | |
| ⚠ | | SC101 | 6620K00020A | HUAJIE AC UL/CSA 3PPIN BLACK |
| ⚠ | | F101 | 0FZZTTH001E | TIME LAG HBC 2153.15MXE(LEAD |
| | | FB101 | 6210TCE003G | BRS3550B BO SUNG 3550MM RADI |
| ⚠ | | HS1 | 4920900021A | EXTRUSION 10*20 16 LX52 |
| ⚠ | | HS2 | 4920900021A | EXTRUSION 10*20 16 LX52 |
| ⚠ | | HS3 | 4920900022A | PLATE 7*60 16 LX52 |
| | | HS4 | 4920900032A | PLATE 20.5 *10.5 *12.0 |
| | | L202 | 61409B0009A | HL-1520S JEONGSAN 7.0UH 25% |
| ⚠ | | LF101 | 6200J000154 | 13.0*710*23680 SAMWAH BULK L |
| | | P201 | 6602T20008K | SMW200-11 YEONHO 11P 2.0MM L |
| | | P401 | 6630V90218A | "35001WR YEONHO 2P 3.5MM DIP," |
| | | P402 | 6630V90218A | "35001WR YEONHO 2P 3.5MM DIP," |
| | | P403 | 6630V90218A | "35001WR YEONHO 2P 3.5MM DIP," |
| | | P404 | 6630V90218A | "35001WR YEONHO 2P 3.5MM DIP," |
| ⚠ | | J30 | 971-0016 | TIN HDC 0.60H NON NON |
| ⚠ | | J31 | 971-0016 | TIN HDC 0.60H NON NON |

# SCHEMATIC DIAGRAM

## 1. SCALER



## 2. POWER & WAFER



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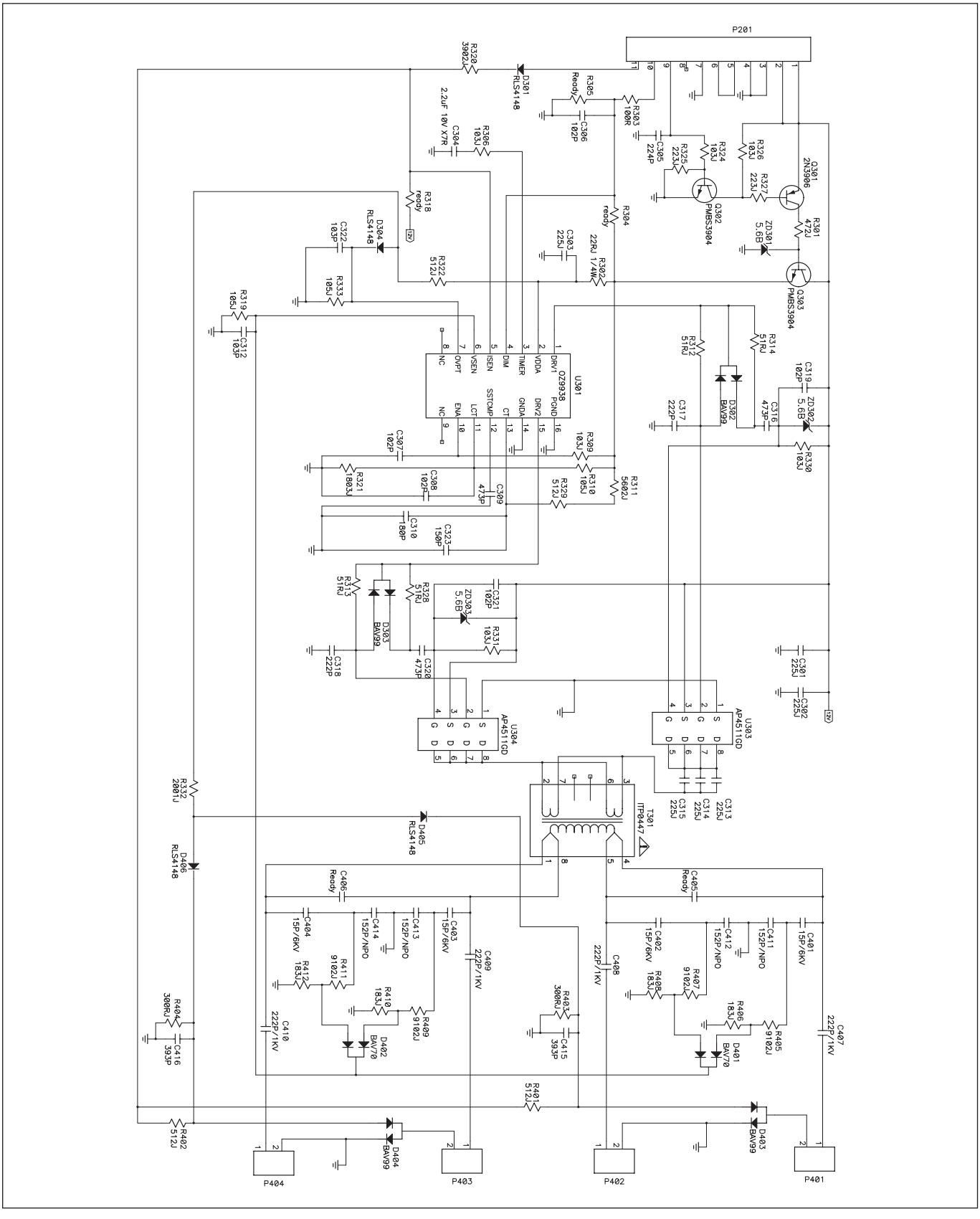
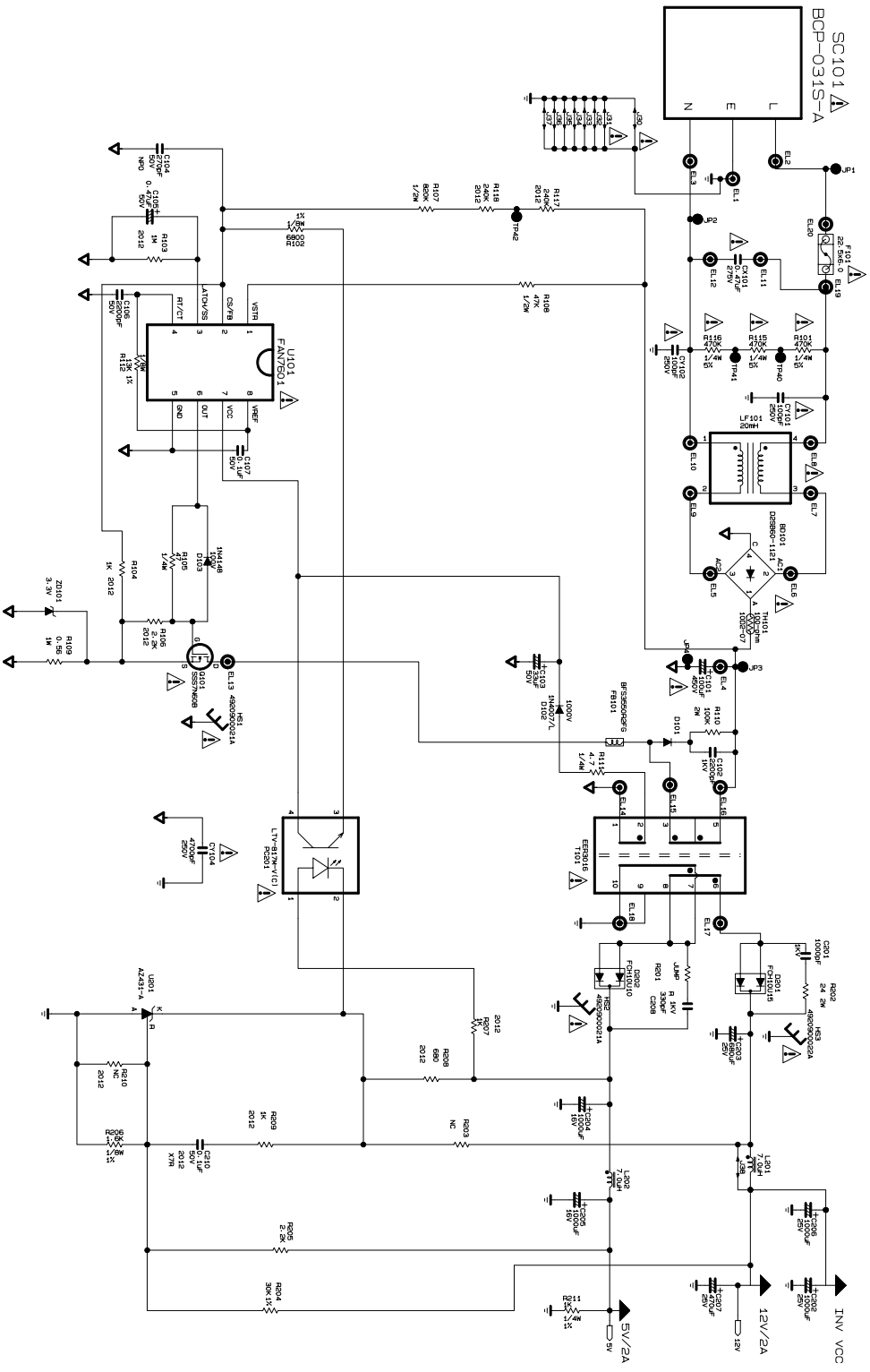

P201
U301
OZ9938
U304
AP4511GD
U303
AP4511GD
T301
ITF0447
P404
P403
P402
P401

# 4. POWER



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